

An Annotated Bibliography of Weeds as Reservoirs for Organisms Affecting Crops

I. NEMATODES

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I. Nematodes

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Introduction

Weeds reach into every dimension of the ecosystem. They strike at the health of man both directly and indirectly. They impact on the health of wild as well as domesticated animals. They interfere with all types of transportation--air, ground, and water. They restrict land and water utilization. And, in addition to the many other areas of impact, they strike a heavy blow in delimiting food and feed production. Not to be forgotten is the aesthetic aspect.

Weeds delimit production of food and feed crops by direct competition for abiotic factors required for growth--light, water, and mineral nutrients. The outcome of this competition is a function of the crop, the weeds, and the level of sophistication and timeliness of the farming operation. Extreme cases result in total crop failure. Regardless of the outcome, however, weeds are costly.

Weeds also delimit crop production indirectly by serving as reservoirs for organisms adversely affecting crops. Weeds serve as reservoirs by providing feed, shelter, and a reproductive site to maintain a population of an organism. These organisms include arthropods, nematodes, pathogens, and vertebrates. Many of these organisms themselves are devastating to crops, with the potential of reducing crop yield to zero. Their effects on crops are often more visible and alarming than is competition by weeds, even though their consequent effects on crop production may not be greater. Furthermore, given weed species may serve as a reservoir for more than one species adversely affecting crops, thus further compounding the problem.

The importance of weed control in crop production increases in an additive manner when the indirect aspects of weeds as reservoirs for organisms affecting crops, as well as the direct effects, are considered. The economics of preventing an outbreak of a disease or an insect by controlling a weed population, while at the same time eliminating competition by the weed with the crop, are very appealing. Control of the other species comes as a bonus to the reduction of competition by the weeds.

Johnsongrass (*Sorghum halepense* L.) may serve as an example to illustrate the direct and the indirect effects of a weed on a crop. Established populations of johnsongrass can offer such severe competition to maize (*Zea mays* L.) plantings that crop failure is complete. Control is difficult and costly. In Ohio, johnsongrass is the overwintering host of maize dwarf mosaic virus (MDMV) and of maize chlorotic

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dwarf virus (MCDV). It also hosts the several species of aphids which vector MDMV and the leafhopper vector (*Graminella nigrifrons*) of MCDV. Early season infection of maize by these viruses can reduce crop yield to zero. Johnsongrass also hosts a lesion nematode (*Pratylenchus* sp.) which parasitizes maize, causing economic losses in production.

This example of johnsongrass illustrates the multidisciplinary nature of weeds as reservoirs for organisms affecting crops, in addition to illustrating the direct and indirect effects of a weed on crop production. This one weed species, johnsongrass, hosts arthropods, nematodes, and pathogens which affect crop yields. Consider the multiple, far-reaching effects of controlling this one weed species--effects relating to crop yield and to the economics of crop production. In addition to these crop production aspects, effective johnsongrass control would affect programs of breeding for resistant crop varieties and programs on research aspects of the organisms hosted by johnsongrass. The importance of johnsongrass control is unquestionable, especially for those who have to contend with it. Perception of this multidisciplinary problem requires an integration of information.

The trend in research and teaching has been in the direction of increased specialization. This specialization has departmentalized the aspects of crop production, leaving a void regarding generalization or integration which gives relevance to the specialized information. Perception of the role of weeds as reservoirs for organisms affecting crops has been neglected in research and teaching during this age of specialization, but in the field the web of relationships among organisms has continued, unaffected by administrative departmentalization and academic classification.

The objectives of this research were: 1) to find and bring together the literature relating to this neglected aspect of crop protection and crop production; 2) to illustrate and emphasize the role of weeds as reservoirs for organisms affecting crops and crop production; 3) to emphasize the multidisciplinary nature of crop protection in crop production; 4) to afford a readily available source of ideas for research in this neglected aspect of crop protection; 5) to emphasize the key role of weeds and their control in crop production; and 6) to illustrate the important indirect effect of weeds in delimiting crop production.

Literature searches have been undertaken of weeds reported to be serving as reservoirs for organisms affecting crops. The results of these searches are being published as separate annotated bibliographies relating to specific groups of organisms--arthropods, nematodes, pathogens, etc. The original intent was to include those research reports which identified specific weeds as hosts for specific organisms of economic significance in the production of specific crops.

Literature searches may have missed reports which should have been included. If so, the authors request that these omitted references be brought to their attention.

It is hoped that this work will serve as a fruitful resource for subjects of multidisciplinary research to increase crop production and that it will stimulate further research into the role of weeds as reservoirs for organisms affecting crops.

The multidisciplinary nature of this work may have increased significance also in view of current concerns regarding vegetation management and monoculture vis-a-vis multiple cropping systems of farming. These matters are of current interest because of the perceived urgency to increase food production and because of environmental

concerns. Further consideration of the interrelationships of organisms--crop, weed, pathogen, nematode, arthropod--may expectantly bring increased relevance to the decision making process.

The bulk of the literature included in this section on plant parasitic nematodes was found as research reports cited in the Helminthological Abstracts, Volumes 1 (1932) through 46 (1977). Original sources of all available reports were reviewed. The research reports of special interest were those which identified a specific weed species as the host of a specific species of nematode which parasitized a specific crop species.

More than 25 families of plants were represented by the weeds reportedly serving as reservoirs for nematodes affecting crops adversely. Weed species classified among the compositae and graminae families were most numerous. Next most numerous were weed species classified among the cruciferae, cyperaceae, scrophulariaceae, leguminosae, polygonaceae, chenopodiaceae, and amaranthaceae families.

It might be concluded from the results of this literature search that much more research is needed on weeds as reservoirs for nematodes affecting crops. It is hoped that this literature compilation will stimulate interest and be of assistance in directing research activities along that vein.

The entries are listed alphabetically by author. The format of the entry is: author, year, title, and source, followed by specific data. The index includes an alphabetical listing of authors and organisms, with notations referring to all relevant entries.

Bibliography

Alalikiria, N. M. 1969. Nematodes of weeds of spring wheat in the Kirov region. Mater. Nauchn. Konf. Vses. O. Gel'mintol., Part I, pp. 14-19. (1)

Altman, J. 1968. The sugar beet nematode. Down to Earth, 23(4):27-31. (2)

Heterodera schachtii was reported on the following weed species:

Amaranthus retroflexus

Chenopodium spp.

Atriplex spp.

Portulaca oleracea

Brassica spp.

Solanum nigrum

Anonymous. 1944. Golden nematode of potato--cooperative survey, 1944. Bur. Entomol. and Plant Quarantine, U.S. Dept. Agr., 20 pp. (3)

A survey in 1944 of 1,480 potato-growing areas in 19 northern states, eastwards to North Dakota, to find distribution of the species of *Heterodera*. *Heterodera marioni* was found to have a wide distribution. *Heterodera schachtii* was found in *Polygonum* sp.

Anonymous. 1946. Entomology. Fla. Agri. Exp. Sta. Rep., 1945-46, pp. 61-64. (4)

J. R. Watson and H. E. Bratley prepared a press bulletin with a list of 25 species of weeds found to be infected with *Heterodera marioni* in fields in 3-year tobacco rotation. List is not included in report.

Anonymous. 1946. Root knot nematode. Tob. Res. Board Bull., Rhodesia, pp. 39-82. (5)

Discussion on the effects of agronomic factors on the yield and infestation with *Heterodera marioni* of tobacco of the variety Bonanza. Practices include weed fallow used in rotation. Native weed hosts are listed.

Anonymous. 1952. Narcissus pests. Minist. Agr., Fish., and Food, London, Bull. 51, 36 pp. (6)

Bulletin on the biology, symptoms produced, extent of damage, and alternative native host plants and weeds of *Ditylenchus dipsaci*, a pest of narcissus. There are sections on *Aphelenchoides subtenuis* and *Pratylenchus pratensis*, both nematode pests of narcissus.

Anonymous. 1952. Plant science. Rep. Sci. Serv. Dept. Agr., Canada, 1951-1952, pp. 10-33. (7)

The weeds *Chenopodium hybridum* and *Capsella bursa-pastoris* are reported as new hosts for the sugar-beet nematode, *Heterodera schachtii*.

Anonymous. 1968. Potato tuber eelworm. Minist. Agr., Fish., and Food, London, Adv. Leaflet 372 (revised), 4 pp. (8)

Mentha arvensis is the chief weed host of potato tuber eelworm (*Ditylenchus destructor*) in Britain, although *Sonchus arvensis* is also important. Other weed hosts are *Tussilago farfara*, *Bellis perennis*, *Rumex obtusifolius*, and *Plantago major*.

Anonymous. 1968. Stem eelworm on cereals and other farm crops. Minist. Agr., Fish., and Food, London, Adv. Leaflet, 6 pp. (9)

The oat race of the stem eelworm (*Ditylenchus dipsaci*) can infest *Stellaria media*, *Cerastium vulgatum*, *Galium aparine*, and *Avena fatua*. They act as alternate hosts.

Anonymous. 1972. East Malling Research Sta., Annu. Rep., 1971. United Kingdom, 190 pp. (10)

The hop strain of arabis mosaic virus (AMV) was transmitted experimentally by *Xiphinema diversicaudatum* to hops and herbaceous plants. Several weeds shown to be susceptible to AMV and also good hosts of *Xiphinema diversicaudatum* are potentially important in the ecology of nettlehead disease.

Ayoub, S. M. 1961. *Pratylenchus zae* found on corn, milo, and three suspected new hosts in California. Plant Dis. Rep., 45:940. (11)

New hosts of *Pratylenchus zae* were found in nematode infested milo fields. They were *Cynodon dactylon*, *Tribulus terrestris*, and *Echinochloa crus-galli*.

Baker, A. D. 1945. Additional Canadian host records for *Heterodera schachtii* Schm. and for *Heterodera marioni* (Cornu) Goodey. Can. Entomol., 76(7):152. (12)

Found considerable numbers of cysts of *Heterodera schachtii* on *Rumex crispus* L. near Sarnia, Ontario.

Arctium minus
Rumex crispus

Heterodera marioni
Heterodera schachtii

Barker, K. R. and J. N. Sasser. 1959. Biology and control of the stem nematode *Ditylenchus dipsaci*. Phytopathol., 49:664-670. (13)

New hosts of *Ditylenchus dipsaci* recorded in North Carolina:

Allium vineale
Erigeron annuus
Lamium purpureum
Ranunculus abortivus

Stellaria media
Taraxacum officinale
Veronica arvensis
Veronica peregrina

Barnes, R. F. and S. R. Gowen. Root-knot nematodes in Trinidad. In: Peachey, J. E. (ed.), Nematodes of tropical crops, Tech. Commun. Commonw. Bur. Helminthol., 40: 155-161. (14)

Lists are given of weeds and crops shown to be hosts of *Meloidogyne* sp., *Meloidogyne incognita*, *Meloidogyne javanica*, and *Meloidogyne exigua* in Trinidad.

Bates, G. H. 1945. An alien weed host of *Heterodera rostochiensis* in England. J. Helminthol., 21:104. (15)

Solanum sarachoides, the seeds of which are found among imported carrot seed, has become a problem in gardening districts in Staffordshire. Experimental pots became heavily infected with cysts of the potato root eelworm, *Heterodera rostochiensis*.

Birchfield, W. 1973. Pathogenesis and host-parasite relations of the cyst nematode, *Heterodera graminophila*, on grasses. *Phytopathol.*, 63:38-40. (16)

Heterodera graminophila was hosted by *Echinochloa colonum* and *Sorghum halepense*.

Birchfield, W. 1954. The reproduction of *Tylenchorhynchus* sp. from sugarcane soils on different plants. *Proc., Assoc. S. Agri. Workers*, pp. 152-153. (17)

An unnamed *Tylenchorhynchus* sp. reported as the cause of a stubby and depleted root system of sugar cane was inoculated into various plants. Populations were estimated 110 days later. *Sorghum halepense* was infected.

Birchfield, W. and W. J. Martin. 1956. Pathogenicity on sugarcane and host plant studies of a species of *Tylenchorhynchus*. *Phytopathol.*, 46:277-280. (18)

Host plant studies showed that the weed *Sorghum halepense* hosted *Tylenchorhynchus martini*.

Bird, G. W. and C. Högger. 1973. Nutsedges as hosts of plant parasitic nematodes in Georgia cotton fields. *Plant Dis. Rep.*, 57:402. (19)

Yearly use of herbicides in cotton has increased populations of nutsedges which seem to coincide with nematode infestations in cotton. *Cyperus esculentus* hosted *Hoplolaimus columbus* and *Cyperus rotundus* hosted *Meloidogyne incognita*.

Brande, J. Van den and J. van Onsem. 1947. Het stengelaaltje *Ditylenchus dipsaci* van de rogge. *Meded. Landbouwhoges. Opzoekingsstn., Gent.*, 12:213-233. (20)

Dispersal of *Anguillulina dipsaci* by weeds acting as reservoirs was investigated. *A. dipsaci* was reported as responsible for a stem disease of rye.

Bratley, H. E. 1946. Weeds as a factor in the control of root-knot in tobacco fields. *Fla. Agri. Exp. Sta., Bull.* 629, 4 pp. (21)

Report on the occurrence of root-knot, due to *Heterodera marioni*, on the roots of weeds on plots lying fallow for 2 years after cropping with tobacco for 1 year. Of the 107 weed species examined, 25 were found to be susceptible. Hosts are listed.

Brooks, T. L. 1955. Additional hosts of the burrowing nematode in Florida. *Plant Dis. Rep.*, 39:309. (22)

The following new hosts of *Radopholus similis* were found under field conditions:

Celosia nitida

Rivina humilis

Desmodium sp.

Solanum nigrum

Psidium guajava

Solanum seaforthianum

Pyrostegia venusta

Urena lobata

Brown, E. B. 1954. Resistentia, an eelworm resistant clover. *Plant Pathol.*, London, 3:122. (23)

Ditylenchus dipsaci was found on wild white clover (*Trifolium repens*) in Cambridge in 1949 and on a field crop in Lincolnshire in the same year.

Brown, E. B. 1956. Damage to henbane by stem eelworms, *Ditylenchus dipsaci* (Kühn, 1857) Filipjev, 1936. J. Helminthol., 30:143-144. (24)

The first report of *Ditylenchus dipsaci* on *Hyoscyamus niger* from Long Melford, Suffolk.

Burckhart, F. 1967. (The occurrence of leaf eelworm on weeds and other wild plants.) Mitt. Biol. Bundesanst. Land. Forstwirtschaft., Berl.-Dahlem., 121:71-75. (25)

Survival and spread of the leaf eelworms *Aphelenchoides fragariae* and *Aphelenchoides ritzemabosi* with reference to weed hosts.

Aphelenchoides ritzemabosi was hosted by:

<i>Bellis perennis</i>	<i>Senecio vulgaris</i>
<i>Capsella bursa-pastoris</i>	<i>Solanum nigrum</i>
<i>Chenopodium album</i>	<i>Sonchus arvensis</i>
<i>Convolvulus</i> sp.	<i>Sonchus oleraceus</i>
<i>Galium aparine</i>	<i>Stellaria media</i>
<i>Lamium album</i>	<i>Taraxacum officinalis</i>
<i>Lamium purpureum</i>	<i>Urtica dioica</i>
<i>Plantago major</i>	<i>Urtica urens</i>

Aphelenchoides fragariae was hosted by:

<i>Glechoma hederacea</i>	<i>Stachys</i> -Arten <i>officinalis</i>
<i>Senecio nemorensis</i>	<i>Stachys</i> -Arten <i>palustris</i>
<i>Stachys</i> -Arten <i>alopecurus</i>	

Caveness, F. E. 1967. Shadehouse host ranges of some Nigerian nematodes. Plant Dis. Rep., 51:33-37. (26)

Tables 1 and 2 list 84 species of plants (including crop and weed species) which are hosts for one or more of 30 nematode species.

Chitwood, B. B. and W. Birchfield. 1957. Citrus-root nematode, a native to Florida soils. Plant Dis. Rep., 41:525. (27)

The citrus-root nematode, *Tylenchulus semi-penetrans*, was found on a new host, climbing hempweed (*Mikania batatifolia*), in Florida.

Clayton, E. E., K. J. Shaw, T. E. Smith, J. G. Gaines, and T. W. Graham. 1944. Tobacco disease control by crop rotation. Phytopathol., 34:870-883. (28)

Results of effects of rotations on root-knot disease in tobacco. *Digitaria* sp. contamination in a rotation following oats nullified the oats' ability to reduce crop infestation by *Heterodera marioni*.

Cobb, G. S., G. Steiner, and F. S. Blanton. 1934. Observations on the significance of weeds as carriers of the bulb or stem nematode in narcissus plantings. Plant Dis. Rep., 18:127-129. (29)

The bulb nematode, *Anguillulina dipsaci*, was found infecting 29 species of weeds. Among them are 21 plants not previously reported as hosts.

Agropyron repens
Ambrosia elatior
Chenopodium album
Chrysanthemum leucanthemum
Digitaria sanguinalis

Phleum pratense
Plantago lanceolata
Plantago rugelii
Polygonum aviculare
Polygonum convolvulus

Erechtites hieracifolia
Erigeron canadensis
Fagopyrum vulgare
Galinsoga parviflora
Lactuca canadensis

Polygonum persicaria
Prunus sp.
Raphanus raphanistrum
Rumex acetosella
Rumex crispus

Lepidium virginicum
Linaria canadensis
Linaria vulgaris
Mollugo verticillata
Oxalis stricta

Rumex obtusifolius
Soja max
Trifolium arvense
Trifolium repens

Colbran, R. C. 1954. Problems in tree replacement. II. The effect of certain methods of management on the nematode fauna of an orchard soil. J. Australian Inst. Agri. Sci., 20:234-237. (30)

Populations of the nematode *Pratylenchus coffeae* were maintained in a soil, once occupied by host apple trees, by allowing weeds, especially *Rumex acetosella*, to grow.

Colbran, R. C. 1956. Root-knot nematodes and their control. J. Queensl. Agr., 82:219-223. (31)

A discussion on the life history of *Meloidogyne* spp. and control measures, including prevention of the growth of susceptible weeds.

Collins, J. C. 1938. Tobacco eelworm (*Heterodera marioni*). Report on farmers' replies to questionnaire. Rhodesia Agri. J., 35:264-278. (32)

Heterodera marioni is widespread in the tobacco growing areas of southern Rhodesia and has spread rapidly. Infestation was thought to arise from infected river water, indigenous weed hosts, and infected garden refuse.

Conover, R. A. and D. O. Wolfenbarger. 1950. Studies on the control of the root-knot nematode on marl soils. Fla. Agri. Exp. Sta. Rep., 1949-50, pp. 248-249. (33)

Applying herbicides to destroy the weed host *Colocasia esculenta* was more efficacious than pulling the host when systems of control of root-knot nematode were compared.

Cooper, J. I. and B. D. Harrison. 1973. The role of weed hosts and the distribution and activity of vector nematodes in the ecology of tobacco rattle virus. Ann. Appl. Biol., 73:53-66. (34)

Nineteen weeds were found infected by tobacco rattle virus (TRV) at a site in Eastern Scotland. TRV can be seed-borne in *Viola arvensis* and *Stellaria media*. *Trichodorus* spp. are the vectors of TRV. *Trichodorus* spp. feed on potatoes,

infecting them more frequently with TRV when the crop was kept weed free. Potatoes were infected more when other hosts were not available.

<i>Achillea millefolium</i>	<i>Polygonum aviculare</i>
<i>Agropyron repens</i>	<i>Polygonum convolvulus</i>
<i>Anchusa arvensis</i>	<i>Rumex acetosella</i>
<i>Chenopodium album</i>	<i>Sagina procumbens</i>
<i>Cirsium arvense</i>	<i>Senecio vulgaris</i>
<i>Festuca rubra</i>	<i>Spergula arvensis</i>
<i>Galeopsis tetrahit</i>	<i>Stellaria media</i>
<i>Hieracium</i> sp.	<i>Urtica urens</i>
<i>Matricaria</i> sp.	<i>Viola arvensis</i>
<i>Poa annua</i>	

Courtney, W. D. 1952. The teasel nematode, *Ditylenchus dipsaci* (Kühn, 1857)
Filipjev, 1936. J. Wash. Acad. Sci., 42:303-309. (35)

The teasel nematode infests and reproduces in spring and winter oats, rye, and spring and winter wheat. Studies in the Pacific Northwest showed that besides the weed *Dipsacus fullonum*, *Collomia gradiflora* can serve as a reservoir for the eelworm.

Crossman L. and J. R. Christie. 1937. Lists of plants attacked by miscellaneous plant-infesting nematodes. Plant Dis. Rep., 21:144-167. (36)

Included in the article were extensive lists of crop and weed hosts for *Anguillulina* spp., *Anguina* spp., *Ditylenchus* spp., *Rotylenchus* spp., *Tylenchus* spp., *Pratylenchus* spp., and others. The following weeds were included:

<i>Achillea millefolium</i>	<i>Helianthus annuus</i>
<i>Agropyron repens</i>	<i>Hordeum jubatum</i>
<i>Amaranthus retroflexus</i>	<i>Koeleria cristata</i>
<i>Atriplex</i> sp.	<i>Kochia prostrata</i>
<i>Avena fatua</i>	<i>Papaver rhoeas</i>
<i>Brassica</i> sp.	<i>Plantago</i> spp.
<i>Carduus</i> spp.	<i>Poa</i> spp.
<i>Carex</i> spp.	<i>Ranunculus</i> spp.
<i>Chenopodium album</i>	<i>Rumex acetosa</i>
<i>Cichorium intybus</i>	<i>Rumex crispus</i>
<i>Cirsium</i> spp.	<i>Setaria viridis</i>
<i>Crepis</i> spp.	<i>Solidago</i> spp.
<i>Cyperus rotundus</i>	<i>Sonchus asper</i>
<i>Dipsacus silvestris</i>	<i>Taraxacum officinale</i>
<i>Ficus</i> sp.	

Cunningham, H. S. and W. F. Mai. 1947. Nematodes parasitic on the Irish potato. Cornell Ext. Bull 712, 24 pp. (37)

A short account is given of the nematode *Heterodera rostochiensis*, a parasite on potatoes in New York State. It sometimes occurs on the roots of *Polygonum* spp. in potato fields.

Daulton, R. A. C. 1955. Progress report on eelworm control experiments. Rhodesian Tob., 11:21-24. (38)

Davidson, T. R. and J. L. Townshend. 1967. Some weed hosts of the southern root knot nematode, *Meloidogyne incognita*. Nematologica, 13:452-458. (39)

Greenhouse studies conducted in Ontario showed the following 34 species of weeds to be hosts of *Meloidogyne incognita*:

<i>Amaranthus retroflexus</i>	<i>Lamium amplexicacile</i>
<i>Anthemis cotula</i>	<i>Leonurus cardiaca</i>
<i>Arenaria serpyllifolia</i>	<i>Malva neglecta</i>
<i>Barbarea vulgaris</i>	<i>Medicago lupulina</i>
<i>Bromus secalinus</i>	<i>Nepeta cataria</i>
<i>Bromus tectorum</i>	<i>Oxalis europaea</i>
<i>Capsella bursa-pastoris</i>	<i>Polygonum persicaria</i>
<i>Cerastium vulgatum</i>	<i>Potentilla norvegica</i>
<i>Chenopodium album</i>	<i>Prunella vulgaris</i>
<i>Chrysanthemum leucanthemum</i>	<i>Rumex crispus</i>
<i>Cynoglossum officinale</i>	<i>Setaria viridis</i>
<i>Daucus carota</i>	<i>Sisymbrium altissimum</i>
<i>Descurainia sophia</i>	<i>Solanum dulcamara</i>
<i>Epilobium</i> sp.	<i>Stellaria media</i>
<i>Euphorbia supina</i>	<i>Thlaspi arvense</i>
<i>Hordeum jubatum</i>	<i>Veronica peregrina</i>
<i>Hypericum punctatum</i>	<i>Veronica serpyllifolia</i>

Dore, W. G. 1942. Nematode infection in poa. Rhodora, 44:246-247. (40)

Anguillula agrostis in *Poa costata* in Nova Scotia has led the author to believe that *Poa costata* may only be a nematode infected *Poa pratensis*. He contends the plant was misnamed on the basis of nematode infection and symptoms of florets.

Dorst, H. H. M. van and H. A. van Hoff. 1965. Arabismozaiek virus bij Komkommer in Nederland. Neth. J. Plant Pathol., 71:176-179. (41)

Xiphinema diversicaudatum was recovered in Holland from soil containing cucumbers infected with arabis-mosaic virus. The soil was found to be the source of the virus. Tracing the soil back to its origin, 22 weed species were found in the vicinity to be hosts of the virus.

Duggan, J. J. and J. F. Moore. 1962. Host-range of the tuber rot eelworm (*Ditylenchus destructor*). Irish J. Agri. Res., 1:109-114. (42)

Weeds growing in the field and in pot tests revealed the following as new host records for *Ditylenchus destructor*:

<i>Bellis perennis</i>	<i>Sonchus asper</i>
<i>Rumex obtusifolius</i>	<i>Tussilago farfara</i>

Dunning, R. A. 1954. Beet stem eelworm. Plant Pathol., London, 3:133-134. (43)

In an artificially infested plot, the weeds *Stellaria media* and *Atriplex patula* were found to be hosts to *Ditylenchus dipsaci*.

Edwards, D. I. and D. P. Taylor. 1964. Host range of an Illinois population of the stem nematode (*Ditylenchus dipsaci*) isolated from onion. Nematologica, 9:305-312. (44)

Tests for possible hosts of *Ditylenchus dipsaci* included the following crop plants: soybean, snapbean, and pea. Weed hosts included:

<i>Brassica nigra</i>	<i>Rumex crispus</i>
<i>Hibiscus trionum</i>	<i>Saponaria officinalis</i>
<i>Pastinaca sativa</i>	<i>Solanum carolinense</i>
<i>Polygonum pennsylvanicum</i>	<i>Solanum nigrum</i>
<i>Polygonum persicaria</i>	

Edwards, E. T. 1932. Stem nematode disease of lucerne, with review of literature concerning the causal organism *Tylenchus dipsaci* (Kühn). Bast. Agri. Gaz., New South Wales, pp. 305-314, 345-356. (45)

The author suggests burning of refuse, exclusive of clovers, trefoils, and susceptible weeds from headlands, and rotation of immune crops to control the nematode. The nema is carried internally in the seed of *Taraxacum officinale* and *Hypochaeris radicata*. It has also been reported on *Medicago denticulata*, *Medicago minima*, and *Bromus unioloides*.

Egunjobi, Olufunke A. 1974. Nematodes and maize growth in Nigeria. I. Population dynamics of *Pratylenchus brachyurus* in and about the roots of maize and its effects on maize production at Ibadan. Nematologica, 20:181-186. (46)

Nematode populations were significantly lower in soil under weeds than soil under maize plants. However, the low nematode populations were consistently found under the weed plants, indicating they can be sustained by weeds. The following weeds were listed as hosts:

<i>Ageratum conyzoides</i>	<i>Spigelia anthelmia</i>
<i>Hibiscus esculentus</i>	<i>Talinum triangulare</i>
<i>Indigofera hirsuta</i>	<i>Tridax procumbens</i>
<i>Pueraria phaseoloides</i>	

Ellenby, C. 1954. Tuber forming species and varieties of the genus *Solanum* tested for resistance to the potato root eelworm *Heterodera rostochiensis* Wollenweber. Euphytica, 3:195-202. (47)

Fassuliotis, G. 1974. Host range of the Columbia lance nematode, *Hoplolaimus columbus*. Plant Dis. Rep., 58:1000-1002. (48)

Hoplolaimus columbus was found on seven weed species, notably *Crotalaria spectabilis* and *Vigna unguiculata*. These findings were from field surveys at Holly Hill, S. C.

Faulkner, L. R. and F. D. McElroy. 1964. Host range of northern root knot nematode on irrigated crop plants and weeds in Washington. Plant Dis. Rep., 48:190-193. (49)

Meloidogyne hapla is widespread throughout the irrigated regions of Washington. From an economic standpoint, potato, sugar beet, and carrot are the most severely affected crop plants. It also attacks alfalfa, red clover, field pea, and peppermint. The following weeds were found to be infected in greenhouse studies:

Amaranthus graecizans
Apocynum androsaemifolium
Asclepias syriaca

Lotus americanus
Malva moschata
Mentha cardiaca

Avena fatua
Centaurea repens
Chenopodium album

Mentha piperita
Sisymbrium officinale
Taraxacum officinale

Convolvulus arvensis
Crotalaria spectabilis
Iva santhifolia

Trifolium fragiferum
Vicia sativa

Feldmesser, J., W. A. Feder, and J. A. Pinckard. 1956. The occurrence of *Pratylenchus* spp. in Florida soils. Abstr., Phytopathol., 46:11. (50)

Hosts mentioned in the abstract include a number of weeds.

Fluiter, H. J. De and J. J. Mulholland. 1941. Gegevens Verkregen bij het onderzoek naar de waardplanten van *Tylenchus coffeae*. Bergcultures, 15:1588-1593. (51)

Contained the results of an investigation to determine the host plants of *Tylenchus coffeae* (*Anguillulina pratensis*) in Java. Host weeds were listed.

Franklin M. T. 1970. Interrelationships of nematodes, weeds, herbicides, and crops. Proc., 10th British Weed Control Conf., pp. 927-933. (52)

Franklin, M. T. 1951. The cyst-forming species of *Heterodera*. Tech. Commun., Commonwealth Bur. Agri. Parasitol. (Helminthol.), St. Albans, 147 pp. (53)

The role of weeds as reservoirs and the chemical, biological, and cultural measures for the control of eight cyst-forming species of the eelworm genus *Heterodera*.

Gahan, W. 1955. Root eelworm of sugar beet. Beet Grower, Dublin, 8:184-189. (54)

A discussion of the life history and mode of spread of *Heterodera schachtii* on crops in Ireland with a review of preventive and control measures. Common weeds acting as reservoirs for the nematode are mentioned including *Rumex* spp., *Chenopodium album*, *Brassica kaber*, and *Stellaria media*.

Gaskin, T. A. 1958. Weed hosts of *Meloidogyne incognita* in Indiana. Plant Dis. Rep., 42:802-803. (55)

In tests for susceptibility to *Meloidogyne incognita* and *Meloidogyne incognita* var. *acrita*, 70 plants were found to be hosts. The following weeds were susceptible:

<i>Abutilon theophrasti</i>	<i>Malva neglecta</i>
<i>Acalypha virginica</i>	<i>Medicago lupulina</i>
<i>Allium canadense</i>	<i>Muhlenbergia schreberi</i>
<i>Amaranthus albus</i>	<i>Oxalis stricta</i>
<i>Amaranthus graecizans</i>	<i>Panicum capillare</i>
<i>Amaranthus retroflexus</i>	<i>Pastinaca sativa</i>
<i>Amaranthus spinosus</i>	<i>Physalis heterophylla</i>
<i>Ampelamus albidus</i>	<i>Phytolacca americana</i>
<i>Apocynum cannabinum</i>	<i>Plantago lanceolata</i>
<i>Asclepias syriaca</i>	<i>Plantago rugeli</i>
<i>Avena fatua</i>	<i>Polygonum aviculare</i>
<i>Brassica juncea</i>	<i>Polygonum coccineum</i>
<i>Capsella bursa-pastoris</i>	<i>Polygonum convolvulus</i>
<i>Centaurea maculosa</i>	<i>Polygonum erectum</i>
<i>Chenopodium album</i>	<i>Polygonum pensylvanicum</i>
<i>Chenopodium ambrosioides</i>	<i>Polygonum persicaria</i>
<i>Cirsium arvense</i>	<i>Portulaca oleracea</i>
<i>Cirsium vulgare</i>	<i>Raphanus raphanistrum</i>
<i>Convolvulus sepium</i>	<i>Rumex acetosella</i>
<i>Daucus carota</i>	<i>Rumex altissimus</i>
<i>Digitaria sanguinalis</i>	<i>Rumex crispus</i>
<i>Echinochloa crusgalli</i>	<i>Rumex obtusifolius</i>
<i>Eleusine indica</i>	<i>Sicyos angulata</i>
<i>Erigeron canadensis</i>	<i>Sisymbrium officinale</i>
<i>Euphorbia maculata</i>	<i>Solanum dulcamara</i>
<i>Euphorbia supina</i>	<i>Solanum nigrum</i>
<i>Hibiscus trionum</i>	<i>Solanum rostratum</i>
<i>Ipomoea hederacea</i>	<i>Sonchus arvensis</i>
<i>Ipomoea lacunosa</i>	<i>Sonchus oleraceus</i>
<i>Ipomoea purpurea</i>	<i>Stellaria media</i>
<i>Lactuca canadensis</i>	<i>Taraxacum officinale</i>
<i>Lactuca pulchella</i>	<i>Tragopogon pratensis</i>
<i>Lactuca scariola</i>	<i>Verbascum blattaria</i>
<i>Leonurus cardiaca</i>	<i>Vernonia altissima</i>
<i>Linaria vulgaris</i>	<i>Xanthium pennsylvanicum</i>

Gateva, S. and G. Penton. 1971. (Phytonematode fauna at different stages in two rice varieties and the fauna of rice field weeds.) Fauna de fitonematodos en diferentes etapas de dos variedades de arroz y fauna de amlas hierbas encontradas en el arrozal. Ing. Agron., 10:19. (56)

Examination of the rice field weeds *Eleusine*, *Andropogon*, *Digitaria*, and *Echinochloa* in Cuba revealed 24 species of nematodes; more than a quarter were parasites of rice. *Panagrolaimus zeae* was one of the most common found.

Gibbs, A. and B. Harrison. 1976. Plant virology. The principles. Edward Arnold, London. (57)

Contains a discussion on control of weeds which serve as reservoirs for nematode species capable of transmitting plant viruses.

Godfrey, G. H. 1935. Hitherto unreported hosts of the root-knot nematode. Plant Dis. Rep., 19:29-31. (58)

Listed 47 plants, all of which were newly recorded hosts of *Heterodera marioni*. All except one occurred as weeds in Hawaiian pineapple fields. They are as follows:

<i>Acanthospermum xanthoides</i>	<i>Paspalum larranagai</i>
<i>Anagallis arvensis</i>	<i>Pennisetum purpureum</i>
<i>Avena fatua</i>	<i>Phytolacca acinosa</i>
<i>Bidens pilosa</i>	<i>Picridium tingitanum</i>
<i>Cassia occidentalis</i>	<i>Prosopis juliflora</i>
<i>Chaetochloa verticillata</i>	<i>Prunella vulgaris</i>
<i>Chloris gayana</i>	<i>Richardsonia scabra</i>
<i>Cleome gynandra</i>	<i>Senecio heracifolia</i>
<i>Commelina nudiflora</i>	<i>Sida meyeniana</i>
<i>Crotalaria saltiana</i>	<i>Silene gallica</i>
<i>Cynodon dactylon</i>	<i>Solanum aculeatissimum</i>
<i>Cyperus strigosus</i>	<i>Solanum nodiflorum</i>
<i>Datura stramonium</i>	<i>Stachys arvensis</i>
<i>Desmodium triflorum</i>	<i>Stachytarpheta dichotoma</i>
<i>Emilia sonchifolia</i>	<i>Synedrella nodiflora</i>
<i>Euphorbia presslii</i>	<i>Syntherisma chinensis</i>
<i>Gomphocarpus physocarpus</i>	<i>Syntherisma pruriens</i>
<i>Graphalium luteo-album</i>	<i>Syntherisma sanguinalis</i>
<i>Hydrocotyle asiatica</i>	<i>Tithonia rotundifolia</i>
<i>Ipomoea pes-caprae</i>	<i>Tricholaena rosea</i>
<i>Ipomoea tuberculata</i>	<i>Triumfetta rhomboidea</i>
<i>Ipomoea turpethum</i>	<i>Verbena bonariensis</i>
<i>Kniphofia uvaria</i>	<i>Xanthium canadense</i>
<i>Paederia foetida</i>	

Goffart, H. 1954. Gegenwarts fragen zum Rübenneematoden problem. Zucker, 7:130-137. (59)

In Western Germany, *Stellaria media* is a noteworthy host of the sugar beet eelworm *Heterodera schachtii*.

Goffart, H. 1951. Über die Verbreitung und Pathogenität des Wurzelgallennematoden (*Heterodera marioni*) in der Türkei. Z. Parasitenkd., 15:70-86. (60)

Listed are accounts of root-knot infection found on the crop plants and weeds in Turkey.

New weed hosts recorded are:

<i>Chenopodium glaucum</i>	<i>Sisymbrium sophia</i>
<i>Lappula</i> sp.	<i>Xanthium spinosum</i>
<i>Rumex crispus</i>	

Goffart, H. 1949. Zur Taxonomie und Entstehung der *Heterodera*-Arten. Nachrichten. Biol. Z. Braunschweig, 1:38. (61)

Species of *Heterodera* which are now specialized parasites of agricultural crops arose by mutations from species occurring on weeds, such as those on *Psamma arenaria* and *Agrostis stolonifera*.

Golden, A. M. and T. Shafer. 1958. Differential response of *Heterodera schachtii* and sugar beet nematode to selections of *Chenopodium album*. Plant Dis. Rep., 42:184-187. (62)

Goodey, J. B. 1951. The potato tuber nematode *Ditylenchus destructor* Thorne, 1945; the cause of eelworm disease in bulbous iris. Ann. Appl. Biol., 38:79-90. (63)

Transfers of infestation have been reciprocally effected between potato, bulbous iris, *Mentha arvensis*, and *Sonchus arvensis*.

Goodey, T. 1947. On the stem eelworm, *Anguillulina dipsaci*, attacking oats, onions, field beans, parsnips, rhubarb, and certain weeds. J. Helminthol., 22:1-12. (64)

A. dipsaci attacks certain common weeds which serve as reservoirs in the absence of susceptible crops. These weeds are:

<i>Anagallis arvensis</i>	<i>Galium aparine</i>
<i>Arenaria serpyllifolia</i>	<i>Polygonum convolvulus</i>
<i>Cerastium arvense</i>	<i>Stellaria media</i>
<i>Cerastium vulgatum</i>	

Goodey, T. 1936. Some applied biological aspects of problems relating to plant-parasitic nematodes. Ann. Appl. Biol., 23:203-230. (65)

The role of weeds as reservoirs for *Anguillulina dipsaci* and the occurrence of *Heterodera schachtii* are discussed. *Heterodera schachtii* may have occurred naturally on *Hordeum murinum* and *Bromus madritensis* and then later transferred to cultivated cereals.

Graham, T. W. 1951. Nematode root rot of tobacco and other plants. S. C. Agri. Exp. Sta., Bull. 390, 25 pp. (66)

Evidence was presented showing that *Pratylenchus leiocephalus* and *Pratylenchus zeae* can overwinter in dead roots of crabgrass (*Digitaria sanguinalis*).

Other infected weeds included:

<i>Amaranthus spinosus</i>	<i>Diodia teres</i>
<i>Ambrosia artemisifolia</i>	<i>Eremochloa ophiuroides</i>
<i>Andropogon virginicus</i>	<i>Fragaria</i> sp.
<i>Chenopodium album</i>	<i>Heterotheca subaxillaris</i>
<i>Crotalaria spectabilis</i>	<i>Solidago gigantea</i>
<i>Dactyloctenium aegyptium</i>	<i>Xanthium pungens</i>

Grujičić, G. 1972. The influence of the host plant upon the duration of the development cycle and number of generations of *Heterodera schachtii* Schmidt. Int. Symp. Nematol. (11th), Reading, U.K., Abstr. 25-26. (67)

Weed plants were tested for their influence on hatching and the life cycle of *Heterodera schachtii*.

Hastings, R. J. and J. E. Bosher. 1952. The discovery of nematodes belonging to the genus *Heterodera* in British Columbia and their host relationships. Sci. Agr., 32:507-510. (68)

Heterodera was found in two locations in British Columbia on *Capsella bursa-pastoris*, *Erodium cicutarium*, *Trifolium dubium*, *Trifolium pratense*, *Trifolium repens*, and *Vicia* sp.

Heathcote, G. D. 1970. Weeds, herbicides, and plant virus diseases. Proc., 10th British Weed Control Conf., pp. 934-941. (69)

Seed-borne virus diseases; the viruses of perennial, annual, and overwintering weeds; the mode of spread of viruses from infected weeds and control; and the effect of herbicides on infected plants are reviewed.

Henderson, V. E. 1951. Some host relationships of the potato-root nematode, *Ditylenchus destructor*, Thorne, 1945. Nature (London), 167:952. (70)

Ditylenchus destructor was reported on several plant hosts on Prince Edward Island.

<i>Allium cepa</i>	<i>Solidago graminifolia</i>
<i>Daucus carota</i>	<i>Taraxacum officinale</i>
<i>Linaria vulgaris</i>	<i>Trifolium hybridum</i>
<i>Plantago major</i>	<i>Trifolium pratense</i>
<i>Sisyrinchium angustifolium</i>	<i>Vicia sativa</i>

Hesling, J. J. 1958. The efficiency of certain grasses as hosts of cereal root eelworm. Plant Pathol. (London), 7:141-143. (71)

Host grasses mentioned include:

<i>Dactylis glomerata</i>	<i>Lolium perenne</i>
<i>Lolium italicum</i>	<i>Phleum pratense</i>

Hodson, W. E. H. 1946. Narcissus pests. Minist. Agr., Fish., Food. (London), Bull. 51, 33 pp. (72)

Weeds infested with the stem and bulb eelworm are mentioned.

Högger, C. H. 1976. Plant parasitic nematodes associated with weeds and agronomic crops in Georgia. Diss. Abstr., Int. B. Sci. Eng., 36:3704-3705. (73)

A survey in Georgia showed *Hoplolaimus columbus*, *Meloidogyne incognita*, *Pratylenchus brachyurus*, and *Trichodorus* sp. were frequently associated with *Cyperus* spp. and *Sorghum halepense*. Population decline of *Trichodorus* spp. during overwintering was reduced by *Ambrosia artemisifolia* and *Lamium amplexicaule*.

Högger, C. H. and G. W. Bird. 1976. Weed and indicator hosts of plant-parasitic nematodes in Georgia cotton and soybean fields. *Plant Dis. Rep.*, 60:223-226. (74)

Cyperus spp. and *Sorghum halepense* acted as overwintering indicator hosts and alternative summer hosts of *Meloidogyne incognita* and *Hoplolaimus columbus*, respectively. Tables were supplied of weed hosts of *Meloidogyne incognita*, *Hoplolaimus columbus*, *Pratylenchus brachyurus*, and *Trichodorus christiei* which included the following species:

<i>Allium vineale</i>	<i>Gnaphalium</i> sp.
<i>Amaranthus spinosus</i>	<i>Lamium amplexicaule</i>
<i>Ambrosia artemisifolia</i>	<i>Lepidium virginicum</i>
<i>Campis radicans</i>	<i>Linaria canadensis</i>
<i>Capsella bursa-pastoris</i>	<i>Physalis subglabrata</i>
<i>Cassia obtusifolia</i>	<i>Richardia scabra</i>
<i>Cassia occidentalis</i>	<i>Rumex hastatulus</i>
<i>Cerastium vulgatum</i>	<i>Sida spinosa</i>
<i>Chenopodium album</i>	<i>Sorghum halepense</i>
<i>Cynodon dactylon</i>	<i>Specularia perfoliata</i>
<i>Cyperus</i> spp.	<i>Stellaria media</i>
<i>Digitaria sanguinalis</i>	<i>Vicia angustifolia</i>
<i>Eleusine indica</i>	<i>Vigna sinensis</i>
<i>Geranium carolinianum</i>	<i>Xanthium pennsylvanicum</i>

Högger, C. H. and G. W. Bird. 1974. Weeds and covercrops as overwintering hosts of plant parasitic nematodes of soybean and cotton in Georgia. *J. Nematol.*, 6:142-143. (75)

The following nematodes were found to be harbored on the following weeds during the winter in Georgia: *Meloidogyne incognita* on *Stellaria media*, *Sorghum halepense*, *Cyperus esculentus*, and *Cyperus rotundus*. *Hoplolaimus columbus* on *Lamium amplexicaule*, *Sorghum halepense*, *Cyperus esculentus*, and *Cyperus rotundus*.

Holdeman, Q. L. and T. W. Graham. 1953. Population trends of the sting nematode under different crops in greenhouse pot culture. *Abstr., Phytopathol.*, 43: 291. (76)

Belonolaimus gracilis populations were increased or maintained on *Ambrosia* sp., *Xanthium pennsylvanicum*, *Cynodon dactylon*, and *Digitaria* sp.

Holdeman, Q. L. and T. W. Graham. 1953. The effect of different plant species on the population trends of the sting nematode. *Plant Dis. Rep.*, 37:497-500 (77)

Belonolaimus gracilis, a serious pest of many crops in the southeastern U.S., can build up on certain weeds, especially *Digitaria sanguinalis*. Other host weeds are *Desmodium tortuosum*, *Cynodon dactylon*, *Paspalum dilatatum*, *Dactyloctenium aegyptium*, *Ambrosia artemisifolia*, and *Xanthium* sp.

Hollis, J. P. 1972. Competition between rice and weeds in nematode control tests. *Phytopathol.*, 62:764. (78)

Criconemoides onoensis hosted by *Echinochloa colona*, *Cyperus* spp., and *Fuirena* sp. in Louisiana rice fields.

Hollis, J. P. 1972. Nematicide-weeds interaction in rice fields. *Plant Dis. Rep.*, 56:420-424. (79)

In nematicide tests in Louisiana rice fields, the common rice weeds *Echinochloa colonum*, *Cyperus iria*, *Cyperus haspan*, *Cyperus articulatus*, and *Fuirena* sp. were hosts for the ring nematode *Criconemoides onoensis*.

Horne, C. W. and W. H. Thames, Jr. 1966. Notes on occurrence and distribution of *Heterodera punctata*. *Plant Dis. Rep.*, 50:869-871. (80)

The cyst nematode *Heterodera punctata* was found at Cap Tourmente, Quebec, heavily infesting *Agrostis stolonifera*. The nematode was found in Texas in 1963 on *Poa annua*.

Hurst, R. R. 1947. The potato root nematode, *Ditylenchus destructor*, in P.E.I. *Proc., Can. Phytopathol. Soc.*, 15:17 (81)

Ditylenchus destructor was found on farms on Prince Edward Island infecting *Mentha arvensis*.

Ichinohe, M. and I. Yuhara. 1956. Oecology of the root-knot nematode in the northern part of Hokkaido. *Jpn. J. Ecology*, 6:24-28. (82)

In Northern Hokkaido, *Meloidogyne hapla* was found on 46 species of weeds in 19 families from 13 localities. Sixteen are new host records. Some of the infected weeds are *Arctium minus*, *Helianthus maximiliani*, *Plantago major* var. *asiatica*, *Plantago lanceolata*, and *Taraxacum platycarpum*.

Ivanova, I. V. 1973. The infection rate of weeds with the nematode *Ditylenchus destructor*. *Byull. Vses. Instit. Gel'mintol. K.I. Skryabina*, 11:39-42. (83)

Ditylenchus destructor was found infecting 11 of 13 species of weeds tested in the Moscow region, USSR. *Solanum nigrum*, *Taraxacum officinale*, and *Barbarea vulgaris* were heavily infected. *Fumaria officinalis*, *B. vulgaris*, and *Matricaria inodora* were newly reported hosts.

Jensen, H. J. 1953. Experimental greenhouse host range studies of two root-lesion nematodes *Pratylenchus vulnus* and *Pratylenchus penetrans*. *Plant Dis. Rep.*, 37:384-387. (84)

Pratylenchus vulnus infected *Plantago lanceolata* and *Rumex* sp. in the greenhouse.

Johnson, L. R. 1936. A note on the occurrence of *Anguillulina dipsaci* (Kühn, 1858) on certain weeds including a new host record. *J. Helminthol.*, 14:233-235. (85)

Stellaria media and *Galium aparine* growing in oat and bean crops in Yorkshire were shown to be attacked by *Anguillulina dipsaci*. *G. aparine* is a new host.

Johnson, L. R. 1939. Further observations on *Anguillulina dipsaci* in rhubarb. *Ann. Appl. Biol.*, 26:739-749. (86)

Anguillulina dipsaci was associated with infection in rhubarb. It also attacked *Stellaria media*.

Johnson, L. R. 1940. On the stem and bulb eelworm (*Anguillulina dipsaci* Kühn) with special reference to its occurrence on weeds of arable land. Ann. Appl. Biol., 27:248-251. (87)

Anguillulina dipsaci is widespread in infection of *Galium aparine* and *Stellaria media* in oat fields. The nematode can persist on weeds and reinfect subsequent crops.

Johnson, L. R. and H. W. Thompson. 1937. Stem eelworm disease of field beans. J. Minist. Agr., London, 44:130-137. (88)

Galium aparine served as a reservoir for the oat strain of the stem eelworm, *Anguillulina dipsaci*.

Johnston, W. C. 1934. The occurrence of eelworms on the roots of certain grasses. J. Dept. Agr., South Australia, 37:705-706. (89)

Eelworm cysts were reported on the roots of *Bromus sterilis*, *Hordeum* sp., and *Phalaris canariensis*.

Johnstone, F. E., Jr. and R. B. Raynolds. 1954. Field experiments on control of root-knot and weeds with soil fumigants. Proc., Assoc. S. Agri. Workers, 51st Ann. Conv., pp. 127-128. (90)

Jones, F. G. W. 1945. Soil populations of beet eelworm (*Heterodera schachtii* Schm.) in relation to cropping. Ann. Appl. Biol., 32:351-380. (91)

Seventeen susceptible weeds which harbor cysts similar to those of beet eelworm are:

<i>Atriplex patula</i>	<i>Erysimum cheiranthoides</i>
<i>Brassica nigra</i>	<i>Galeopsis speciosa</i>
<i>Brassica rapa</i>	<i>Lepidium sativum</i>
<i>Capsella bursa-pastoris</i>	<i>Polygonum persicaria</i>
<i>Chenopodium album</i>	<i>Rumex crispus</i>
<i>Chenopodium polyspermum</i>	<i>Sisymbrium officinale</i>
<i>Chenopodium rubrum</i>	<i>Stellaria media</i>
<i>Cochlearia armoracia</i>	<i>Thlaspi arvense</i>
<i>Coronopus ruellii</i>	

Jones, F. G. W. and F. R. Petherbridge. 1947. Beet eelworm. British Sugar Beet Rev., 15:139-142; 16:31-36. (92)

A list of weeds and crop plants attacked by the sugar-beet eelworm, *Heterodera schachtii*, in England and Wales is given.

Kasimova, G. A. 1969. Nematodes of some weeds from vegetable fields in the Kuha-Khachmas zone of Azerbaidzhan. Mater. Sess. Zakavk. Sov. Koord. Nauchno-Issled. Rab. Zashch. Rast., 4:92-93. (93)

The weeds include species in *Amaranthus*, *Atriplex*, *Chenopodium*, *Cynodon*, *Cyperus*, *Glycyrrhiza*, *Picris*, *Rubus*, and *Sorghum*. The nematodes mentioned are *Aphelenchus avenae*, *Aphelenchus cylindricaudatus*, *Aphelenchoides helophilus*, *Aphelenchoides olesistus*, *Aphelenchoides parietinus*, *Ditylenchus dipsaci*, *Ditylenchus intermedius*, *Paraphelenchus pseudoparietinus*, *Pratylenchus pratensis*, *Rotylenchus multicinctus*, *Tylenchus davainei*, and *Tylenchus filiformis*.

Kavanagh, T. 1974. The influence of herbicides on plant disease. II. Vegetables, root crops, and potatoes. Sci. Proc., Royal Dublin Soc., Ser. B, 3:251-265. (94)

The beneficial effects of weed control by herbicides on reducing virus diseases of vegetable crops carried by nematodes were reviewed.

Kemper, A. 1958. Schäden durch Wurzelgallenälchen an Freiland Kulturen. Gesunde Pflanzen, 10:219-222. (95)

In the Ruhr district of Westphalia, root-knot nematode, *Meloidogyne* sp., severely damaged carrots. *Galinsoga parviflora*, a common weed in the area, is responsible for harboring the nematode.

Kemper, A. 1959. Weitere Unkraüter als Wirtspflanzen des Wurzelgallenälchens (*Meloidogyne* sp.). Gesunde Pflanzen, 11(12):229-231. (96)

Root-knot nematode galls were found on *Atriplex* sp., *Matricaria inodora*, *Galinsoga parviflora*, *Polygonum convolvulus*, *Polygonum aviculare*, *Solanum nigrum*, and *Taraxacum* sp.

Khurramov, SH. KH. 1974. Nematodes of the weeds of sugarcane in the Surkham Dar'ya region (USSR). Byull. Vses. Gel'mintol. K. I. Skryabina, 14:95. (97)

Kincaid, R. R. 1952. Effects of two-year rotations on nematode diseases, yield and quality of cigar wrapper tobacco. Proc., Soil Sci. Soc. Fla., pp. 78-83. (98)

The condition known as "coarse root" on tobacco is believed to be associated with attack by *Pratylenchus leiocephalus*. Rotations of crops and weed fallow showed that *Eleusine indica* increased nematode infestation. *Emelista tora* may also harbor the nematode through a fallow year.

Larsen, H. 1948. Växtföljden och växtsjukdomarna. Försök och Forskning, Sweden, 5:14, 15. (99)

Plant diseases which may be propagated by crop rotation, including fallow, were discussed. Nematode species responsible for disease increases were shown in a table with susceptible crop and weed hosts.

Laughland, J. 1947. The oat nematode. Ontario Dept. Agr., Bull. 453, 12 pp. (100)

Discussion of importance of weed control in reducing cereal root eelworm, *Heterodera major*.

Li, L.-Y. and C.-T. Shao. 1947. A preliminary list of host plants of *Heterodera marioni* in Fukien and Kwangtung. Biol. Bull., Fukien Christian Univ., 6:1-6. (101)

A list was given of 75 species of cultivated plants and weeds which have been found to be attacked by *Heterodera marioni*.

Lindhardt, K. 1957. Staengelalen (*Ditylenchus dipsaci*) i havebruget. Horticultura, 11:123-127. (102)

Ditylenchus dipsaci has been important in Denmark as a parasite of garden flowers and vegetables. Many common weeds were shown to act as reservoirs.

Linford, M. B. 1939. Attractiveness of roots and excised shoot tissues to certain nematodes. Proc., Helminthol. Soc. Washington, 6:11-18. (103)

Laboratory observations of the behavior of larvae of *Aphelenchus avenae*, *Heterodera marioni*, *Pratylenchus pratensis*, and *Rotylenchus multicinctus* in presence of growing roots showed various degrees of grouping around the root tips. Roots of *Amaranthus gracilis*, *Cyperus rotundus*, *Erigeron albidus*, *Euphorbia hirta*, *Panicum barbinode*, *Portulaca oleracea*, and *Vigna sinensis* were all attractive, although the last three were highly resistant to root-knot under field conditions.

Linford, M. B. 1941. Parasitism of the root-knot nematode in leaves and stems. Phytopathol., 31:634-648. (104)

Heterodera marioni infected leaves and stems of *Emilia sonchifolia* and *Portulaca oleracea*.

Linford, M. B. 1952. Pineapple diseases and pests in Mexico. FAO Plant Prot. Bull., 1:21-25. (105)

Pineapple roots in Mexico's Loma Bonita region were widely infested with *Heterodera marioni*, as were the roots of some weeds.

Linford, M. B. and F. Yap. 1940. Some host plants of the reniform nematode in Hawaii. Proc., Helminthol. Soc., Washington, 7:42-44. (106)

Rotylenchus reniformis has been found capable of egg production on 68 species of plants.

Linnman, N. 1945. Klövertrötthet och Klöver 81. Lantmannen, 29:567-569. (107)

The clover stem eelworm in middle Sweden causes a reduction in the legume content of hay in crops from the second year onwards. The eelworm thrives on *Agrostemma githago* and *Geranium dissectum*. Control of the eelworm involves destruction of these weeds.

MacLogan, D. S. 1958. Pest control in cereal crops. Scottish Agr., 37:158-161. (108)

Control measures for *Ditylenchus dipsaci* in cereal crops were recommended. Weed suppression of especially *Stellaria media*, *Galium aparine*, and *Dipsacus sylvestris* as well as use of resistant varieties and crop rotations were suggested.

MacMillan, H. G. 1941. Some diseases of drug plants and herbs observed in southern California. Plant Dis. Rep., 25:443-445. (109)

Heterodera marioni was found infesting the roots of deadly nightshade, *Atropa belladonna*, both in seedling boxes and in fields in southern California. Small roots of *Digitalis purpurea* were also attacked.

Mathur, V. K. and S. K. Prasad. 1974. Survival and host range of the rice root nematode, *Hirshmanniella oryzae*. Indian J. Nematol., 3:88-93. (110)

The nematode utilized the following weeds as alternate hosts: *Echinochloa crusgalli*, *Eclipta alba*, *Crotophora* sp., and *Brachiaria ramosa*.

McBride, J. M., D. M. Johns, and C. R. Carter. 1961. Relative host responses of interplanted weeds and corn to *Pratylenchus zeae* and *Pratylenchus brachyurus* (Nematoda, Tylenchida). Abstr., Phytopathol., 51:644. (111)

Roots of 33 weed species growing with maize were sampled for *Pratylenchus zeae* and *Pratylenchus brachyurus*. Weeds were considered to be non-hosts, or at best non-congenial hosts. However, possible hosts, selected on the basis of 67% or more of the root samplings yielding nemas, were:

<i>Aster</i> sp.	<i>Sida rhombifolia</i>
Casterbean	Tomato
<i>Crotolaria spectabilis</i>	<i>Verbena</i> sp.
<i>Helianthus</i> sp.	<i>Vinca rosea</i>
<i>Phaseolus limensis</i>	<i>Zinnia</i> sp.
<i>Phlox drummondii</i>	

Miller, J. H. 1946. Notes on diseases of garden crops in Georgia in 1945. Plant Dis. Rep., 30:48-49. (112)

Heterodera marioni was found only on the one weed *Acalypha ostryaefolia*. Seven other weeds were free from infection.

Miller, P. M. and J. F. Aherns. 1969. Influence of growing marigolds, weeds, two cover crops, and fumigation on subsequent populations of parasitic nematodes and plant growth. Plant Dis. Rep., 53:642-646. (113)

Weed hosts of *Pratylenchus penetrans* and *Tylenchorhynchus claytoni* were:

Amaranthus retroflexus, *Digitaria ischaemum*, and *Digitaria sanguinalis*.

Minton, N. A., E. T. Tucker, and A. M. Golden. 1973. Occurrence of *Heterodera moths*, a cyst nematode, in the United States. Plant Dis. Rep., 57:946. (114)

Heterodera moths was recorded at Midville, Georgia, in 1972. This was the first record in the United States. It was found on the weed *Cyperus esculentus*.

Mintz, A. 1943. Additional list of plants affected by *Heterodera marioni*. Hassadeh, 24:104. (115)

The following weeds were recorded from sites in Palestine as being new hosts of *Heterodera marioni*: *Argyrea speciosa*, *Centaurea hyalolepis*, *Cichorium pumilum*, *Lathyrus ochrus*, *Litchi chinensis*, *Panicum colonum*, and *Ridolfia segetam*.

Mishkino, L. P. Nematodes of weeds in the Gorkov region. Uch. Zap. Gor'k. Gos. Pedagog. Inst., A. M. Gor'kogo, 27:153-159. (116)

Morris, H. E. and M. M. Afanasiev. 1945. Sugar beet diseases and their control in Montana. Montana Agri. Exp. Sta., Bull. 427, 22 pp. (117)

Various methods of control of *Heterodera marioni* in sugar beet, including elimination of susceptible weeds, were discussed.

Mulvey, R. H. 1957. Susceptibilities of cultivated and weed plants to the sugar-beet nematode, *Heterodera schachtii*, Schmidt, 1871, in southwestern Ontario. J. Helminthol., 31:225-228. (118)

Of the 90 plant species tested for susceptibility to *Heterodera schachtii*, only plants in the genera *Beta* and *Brassica* were heavily infested. More lightly infested plants were in the following families: Amaranthaceae, Caryophyllaceae, Chenopodiaceae, Cruciferae, Polygonaceae, and Portulacaceae.

Murant, A. F. 1970. The importance of wild plants in the ecology of nematode-transmitted plant viruses. Outlook Agr., 6:114-121. (119)

Several cases of weeds acting as hosts for nematode-borne viruses and their vectors were reported. *Longidorus elongatus*, a vector of raspberry ringspot and tomato black ring viruses, was hosted by a wide range of annual and perennial plants, especially weeds. *Trichodorus primitivus* and *Trichodorus pachydermis* were both found on *Stellaria media*. Some success was achieved in controlling the viruses by using herbicides to kill host weeds.

Nagvi, S. Q. A. and M. M. Alam. 1974. Additions to the host records of the root-knot nematode *Meloidogyne incognita*. Curr. Sci. (Bangalore), 43:564. (120)

In Uttar Pradesh, India, *Meloidogyne incognita* was found on *Amaranthus gracilis*, *Arundo donax*, and *Chenopodium amaranticolor*.

Naude, P. J. 1939. The control of root-knot in tobacco by means of crop rotation. Farming in S. Africa, 14:442, 460. (121)

Nolte, H. W. 1957. *Ditylenchus dipsaci* an Zwiebeln in Mitteldeutschland. Nematologica, 2:376-381, Suppl. (122)

Weeds, particularly *Stellaria media* and *Polygonum* spp., enabled the onion race of *Ditylenchus dipsaci* to persist.

Norton, D. C. 1966. Additions to the known hosts of *Meloidogyne hapla*. Plant Dis. Rep., 50:523-524. (123)

The following new weed hosts of *Meloidogyne hapla* in Iowa included:

<i>Althaea rosea</i>	<i>Kochia scoparia</i>
<i>Brassica napus</i>	<i>Lepidium densiflorum</i>
<i>Brassica nigra</i>	<i>Melilotus alba</i>
<i>Cannabis sativa</i>	<i>Plantago rugelii</i>
<i>Cardaria draba</i>	<i>Portulaca oleracea</i>
<i>Cirsium altissimum</i>	<i>Rumex altissimus</i>
<i>Fagopyrum sagittatum</i>	<i>Tribulus terrestris</i>

Oostenbrink, M. 1955. Over da waardplanten van het bietencystenaaltje, *Heterodera schachtii*, Schmidt. Versl. Meded. Plantenziektenkd., 127:186-193. (124)

New hosts of *Heterodera schachtii* found in The Netherlands were:

<i>Arabis arenosa</i>	<i>Dianthus barbatus</i>
<i>Arabis turrita</i>	<i>Dianthus plumaris</i>
<i>Aubrietia columnnea</i>	<i>Polygonum convolvulus</i>
<i>Barbarea praecox</i>	<i>Rapistrum perenne</i>
<i>Brassica cernua</i>	<i>Rumex acetosella</i>
<i>Cardamine impatiens</i>	<i>Rumex patientia</i>
<i>Cheiranthus alpinus</i>	<i>Sesbania exaltata</i>

Perez, L. 1974. Weeds as hosts to nematode parasites in bananas in the Urába District. Revista Comalfi, 1:185-187. (125)

Pitman, H. A. J. 1946. Eelworm scab of potatoes. J. Dept. of Agr., Victoria, 44:481-584. (126)

Eelworm scab of potatoes due to *Heterodera marioni* caused considerable damage to potato tubers in Victoria. The most promising method of control of the nematode was bare fallow with rigorous weed eradication, since the nematode also attacked a number of weeds of pasture and arable soils.

Plakidas, G. 1936. Nematodes on alligator weed. Plant Dis. Rep., 20:22. (127)

Heterodera marioni was found on the roots and *Anguillulina dihystra* in the leaves of *Alternanthera phylloxeroides*, alligator weed. The weed occurred in strawberry fields of Louisiana.

Potter, J. W., J. L. Townshend, and T. R. Davidson. 1969. Wild and cultivated grass hosts of the southern root-knot nematode, *Meloidogyne incognita*. Nematologica, 15:29-34. (128)

Glasshouse experiments in Canada showed the following new hosts of *Meloidogyne incognita*:

<i>Agropyron repens</i>	<i>Elymus wiegandii</i>
<i>Alopercurus aequalis</i>	<i>Glyceria pulchella</i>
<i>Agrostis perennans</i>	<i>Hystrix patula</i>
<i>Agrostis scabra</i>	<i>Panicum miliaceum</i>
<i>Andropogon scoparius</i>	<i>Phleum alpinum</i>
<i>Echinochloa pungens microstachya</i>	<i>Phleum pratense</i>
<i>Enchinochloa pungens wiegandii</i>	<i>Poa palustris</i>
<i>Elymus virginicus</i>	

Prokhorov, P. P. 1972. Nematodes of weeds on soybean fields in the Amur region (USSR). Zashch. Rast. Vred. Bolezn., pp. 42-46. (129)

The nematode fauna of 16 common weeds associated with soybean in the Upper Amur areas, Far Eastern USSR, was investigated, revealing 51 species. A list was included.

Prummel, W. 1958. *Solanum nigrum* L. as a host of the potato root eelworm, *Heterodera rostochiensis* Wollenw. Tijdschr. Planten. Ziekten., 64:142-143. (130)

Pushkarnath and B. N. R. Choudhary. 1958. Root-knot nematodes on potatoes in India. Curr. Sci. (Bangalore), 27:214-215. (131)

Coleus perviflorus acted as a wild collateral host of *Meloidogyne incognita*. New records for *Meloidogyne incognita*, *Meloidogyne incognita acrita*, and *Meloidogyne javanica* were *Achyranthus spera* and *Physalis minima*.

Putnam, D. F. and G. Thorne. 1934. Eelworm disease on oats. Canadian Plant Dis. Surv., 14:12-13. (132)

The first report of *Heterodera schachtii* in North America was recorded on oats in Ontario. *Avena fatua*, wild oats, was also susceptible.

Rangaseami, G., V. N. Vasantharajan, and R. Venkatesan. 1960. The occurrence of root-knot nematodes on sugarcane and on some weeds. Curr. Sci. (Bangalore), 29:236-237. (133)

The common weeds *Acalyphia indica*, *Gynandropsis pentaphylla*, and *Cleome viscosa* were infected by a species of *Tylenchorhynchus* and *Meloidogyne javanica*. The nematodes caused a stunting of plants and chlorosis of leaves of sugar cane in Madras State.

Rao, Y. S., P. Israel, and H. Biswas. 1970. Weed and rotation crop plants as hosts for the rice root-knot nematode, *Meloidogyne graminicola* (Golden and Birchfield). Oryza, 7:137-142. (134)

In Cuttack, India, the following weeds from rice fields were infested with *Meloidogyne graminicola*: *Andropogon* sp., *Blumea* sp., *Echinochloa colonum*, *Echinochloa crusgalli*, *Eclipta alba*, *Eleusine indica*, *Fimbristylis miliacea*, *Grangea madraspratensis*, *Jussieua repens*, *Paspalum sanguinola*, *Phyllanthus urinaria*, and *Vandellia* sp.

Raski, D. J. and M. W. Allen. 1948. Sugar beet nematode; identification and recommendations for control of the pest in California fields. Calif. Agr., 2(11): 8, 16. (135)

Atriplex patula, *Brassica* spp., *Chenopodium album*, *Portulaca* sp., and *Rumex* sp. were reported as hosts of *Heterodera schachtii* under California conditions.

Reinmuth, E. 1936. Das Französenkraut als Wirtspflanze van *Heterodera marioni* (Cornu 1879) Goodey 1932. Z. Pflanzenkr. (Pflanzenpathol.) Pflanzenschutz, 46:6-8. (136)

Heterodera marioni was recorded for the first time on *Galinsoga parviflora* in Germany.

Reynolds, H. W. and B. Sleeth. 1951. Root-knot nematode on canaigre, Plant Dis. Rep., 35:9. (137)

Meloidogyne incognita was reported producing galls on the roots of canaigre, *Rumex hymenosepalus*, a native plant of arid areas of the American Southwest and Mexico.

Rhoades, H. L. 1964. Nutsedge, an important host of plant nematodes in Florida. Plant Dis. Rep., 48:994-995. (138)

In greenhouse studies, populations of *Belonolaimus longicaudatus*, *Hoplolaimus galeatus*, and *Trichodorus christiei* increased rapidly on *Cyperus rotundus*. *Meloidogyne incognita* also built up on *Cyperus rotundus*, but at a slower rate.

Riggs, R. D. and M. L. Hamblen. 1966. Additional weed hosts of *Heterodera glycines*. Plant Dis. Rep., 50:15-16. (139)

Heterodera glycines, the soybean cyst nematode, was found on the following weeds in Arkansas: *Cardamine parviflora* var. *arenicola*, *Cleome serrulata*, *Digitalis* sp., *Geranium maculatum*, *Linaria canadensis*, *Phytolacca americana*, and *Portulaca oleracea*.

Rush, M. C. 1970. Transmission of tobacco ringspot virus from native hosts to *Cucumis sativus* by *Xiphenema americanum*. Phytopathol., 60:917-918. (140)

Tobacco ringspot virus from naturally infected or inoculated *Eupatorium capilifolium*, *Plantago lanceolata*, *Rumex obtusifolius*, and *Xanthium strumarium* plants was transferred to cucumber seedlings by hand-picked *Xiphenema americanum*.

Sakchiev, A. 1971. New data on the distribution and species composition of *Meloidogyne* on vegetables, melons, and weeds in Turkmenia. Izv. Akad. Nauk Turkm. SSR, 5:49-53. (141)

Sakchiev, A. 1972. Results of the study of root-knot nematodes--parasites of vegetables, melons, and weeds in Turkmenia. Nematodnye Bolezn., pp. 135-137. (142)

Salentiny, T. 1959. Durch die Rübenrasse des Stockälchens *Ditylenchus dipsaci* hervorgerufene Schadenbilder bei einigen Unkrautarten. Nematologica, 4:142-146. (143)

Ditylenchus dipsaci damaged various weeds. Four categories of symptoms on various weeds were presented:

- 1) Tissue splitting and shoot malformation--*Aethusa cynapium*, *Avena fatua*, *Polygonum convolvulus*, *Polygonum persicaria*, and *Sonchus arvensis*.
- 2) Considerable distortion without noticeable lesions--*Anagallis arvensis*, *Convolvulus arvensis*, *Mercurialis annua*, *Sinapis arvensis*, and *Thlaspi arvense*.
- 3) Swellings--*Atriplex patula*, *Chenopodium album*, *Galium aparine*, *Plantago major*, and *Polygonum aviculare*.
- 4) Slight swellings--*Galeopsis tetrahit*, *Lepidium draba*, *Melandrium noctuiflorum*, *Papaver rhoeas*, *Ranunculus arvensis*, *Senecio vulgaris*, and *Stellaria media*.

Salentiny, T. 1957. Untersuchungen über den Wirtspflanzenkreis einer Rübenrasse von *Ditylenchus dipsaci* in Baden-Württemberg. Nematologica, 2:382-386 suppl. (144)

Various weeds were tested in host range studies of a race of *Ditylenchus dipsaci*.

Samad, A. G. 1960. Root-knot disease of jute. Sci. and Cult., 25:639-640. (145)

Meloidogyne javanica was found on three weeds, *Celosia argentia*, *Cleome viscosa*, and *Ageratum conyzoides*, from a field of jute. *Meloidogyne hapla* was found on *Cleome viscosa* and *Celosia argentia* only.

Sasser, J. N. 1950. Population dynamics of nematode parasites of tobacco in certain crop rotations. Abstr., Phytopathol., 41:31. (146)

Sasser, J. N. and C. J. Nusbaum. 1955. Seasonal fluctuations and host specificity of root-knot nematode populations in two-year tobacco rotation plots. Phytopathol., 45:540-545. (147)

Two weeds, *Erigeron canadensis* and *Diodia teres*, developed root-knot galls from *Meloidogyne* spp.

Sayre, R. M. 1960. A survey of certain vegetable growing areas in Ontario for the occurrence of root-knot nematode. Can. Plant Dis. Surv., 40:75-77. (148)

Five new hosts of *Meloidogyne hapla*, all weeds, are *Chenopodium glaucum*, *Daucus carota* subsp. *carota*, *Erigeron annuus*, *Potentilla intermedia*, and *Sonchus asper*.

Schuster, M. L. 1955. Sugar beet growers can starve out nematodes. Nebraska Exp. Sta. Quart., 3(3):10-11. (149)

Kochia sp. is a common weed susceptible to root-knot nematodes. A rotation to control *kochia* was discussed.

Schuster, M. L. and G. Thorne. 1956. Distribution, relation to weeds, and histology of sugar beet root galls caused by *Nacobbus batatiformis* Thorne and Schuster. J. Amer. Soc. Sugar Beet Technol., 9:193-197. (150)

Nacobbus batatiformis was found to persist on *Kochia scoparia* and *Chenopodium album*. Also *Opuntia tortispina*, *Opuntia fragilis*, and *Coryphantha vivipara* were found to be infected.

Seinhorst, J. W. 1957. Some aspects of the biology and ecology of stem eelworms. Nematologica, 2:355-361. (151)

Host range plants for different races of *Ditylenchus dipsaci* were mentioned. They included *Hyacinthus orientalis*, *Medicago sativa*, *Narcissus* sp., *Pisum sativum*, *Solanum tuberosum*, *Trifolium pratense*, *Trifolium repens*, and *Tulipa gesneriana*. Weeds were probably very important in maintaining a certain level of infestation.

Sethi, C. L., J. S. Gill, and G. Swarup. 1964. A note on the prevalence of *Meloidogyne* spp. in vegetable crops. Indian Phytopathol., 17:69-70. (152)

Field surveys of the occurrence of root-knot nematodes around Delhi showed that *Meloidogyne incognita*, *Meloidogyne javanica*, *Meloidogyne arenaria*, and *Meloidogyne arenaria thamesi* were present. Sometimes more than one of the species occurred on the same host. It was the first record of *Meloidogyne incognita* on *Eragrostis pilosa*.

Shlepetene, Yu. A. 1965. Nematodes of weeds. Zashch. Rast. Vred. Bolezn., pp. 74-75. (153)

Forty-four nematode species were listed that occur on seven common weeds in Lithuania, USSR.

Sieff, D. 1959. Experiment in the control of tomato eelworms. Hassadeh, 39:1011-1016. (154)

Root-knot nematodes were reported on many common weeds.

Slykhuis, J. T. 1967. *Agropyron repens* and other perennial grasses as hosts of bromegrass mosaic virus from the USSR and the United States. FAO Plant Prot. Bull., 15:65-66. (155)

Bromegrass mosaic virus (BMV) from diseased *Agropyron repens* collected in the Voronezh district of the USSR was readily transmitted to cereals and various grasses in Canada. In North America BMV has been found in Kansas and Nebraska on *Bromus inermis* or on barley, and *Poa pratensis* in close association with diseased *Bromus inermis*. In Germany a strain of BMV which infected *Lolium multiflorum* was transmitted by the nematodes *Xiphinema paraelongatum* and *Xiphinema coxi*.

Solovega, G. I. Plant nematodes of weeds in the cabbage field. Tr. Gel'mintol. Lab., 16:115-119. (156)

Soper, M. H. R. 1949. When clover fails. Farmers' Weekly, London, 31(20):47. (157)

Hieracium gronovii and other weeds served as alternative hosts to *Anguillulina dipsaci* which caused a failure of red clover in some districts of England.

Southey, J. F. and L. N. Staniland. 1950. Observations and experiments on stem eelworm *Ditylenchus dipsaci* (Kühn 1857) Filipjev 1936, with special reference to weed hosts. J. Helminthol., 24(3):145-154. (158)

Experiments in the west of England on the weed hosts of red clover, oat, teasel, phlox, and narcissus races of *Ditylenchus dipsaci* showed the importance of weeds as hosts. Infested plants included: *Capsella bursa-pastoris*, *Cerastium vulgatum*, *Cirsium arvense*, *Galium aparine*, *Matricaria* sp., *Rumex crispus*, *Stellaria media*, and *Veronica agrestis*.

Staniland, L. N. 1945. The occurrence of *Anguillulina dipsaci* (Kühn) on weed hosts, including new host records in fields of oats affected by tulip root. Ann. Appl. Biol., 32:171-173. (159)

Examination of weeds growing in oats suffering from "tulip root", a disease caused by *Anguillulina dipsaci*, revealed the parasite in *Arenaria serpyllifolia*, *Cerastium arvense*, *Galium aparine*, and *Stellaria media*.

Steiner, G. 1934. Root-knot and other nematodes attacking rice and some associated weeds. Phytopathol., 24:916-928. (160)

Listed were a number of nematode species found in roots of weeds and rice plants. *Heterodera marioni* attacked rice and *Echinochloa crusgalli*.

Stokes, D. E. and K. R. Langdon. 1966. A grass host plant of the citrus nematode, *Tylenchulus semipenetrans*, and other associated plants. Plant Dis. Rep., 50: 822-825. (161)

Andropogon rhizomatus, a grass in Florida, was newly reported as host for *Tylenchulus semipenetrans*.

Sudakova, I. M. 1959. Weeds as reservoir hosts of plant nematodes. Tr. Gel'mintol. Lab., 9:322-325. (162)

The author concluded that: 1) weeds are primary reservoirs for eelworms and their nematode fauna always consists of a considerable number of para rhizobionts and plant parasites of non-specific pathogenic effect; 2) weeds are reservoirs of stylet-bearing nematodes; and 3) when numerous, weeds are of importance in the accumulation and spread of infection.

Suit, R. F., E. P. DuCharme, and T. L. Brooks. 1954. Non-citrus plants in relation to spreading decline. Proc., Fla. Soil Sci. Soc., 14:182-184. (163)

The burrowing nematode, *Radopholus similis*, infested citrus plants. Attempted eradication of the nematode was frustrated by the presence of weeds on which it survived.

Tappan, W. B., R. R. Kincaid, J. R. Christie, and W. H. Thames, Jr. 1958. Shade tobacco nematode studies. Fla. Agri. Exp. Sta., Annu. Rep., p. 337. (164)

Dixie shade tobacco and *Xanthium* sp. are definite hosts of *Pratylenchus penetrans* and *Pratylenchus brachyurus*.

Taylor, C. E. and P. R. Thomas. 1968. The association of *Xiphinema diversicaudatum* (Micoletsky) with strawberry latent ringspot and arabis mosaic viruses in a raspberry plantation. Ann. Appl. Biol., 62:147-157. (165)

An outbreak of strawberry latent ringspot virus (SLRV) in Malling Jewel raspberry in Scotland coincided with the greatest abundance of the nematode vector, *Xiphinema diversicaudatum*. Arabis mosaic virus (AMV) was not detected in the crop but was present, together with SLRV in many weed species. AMV was transmitted through the seed of *Poa annua*, *Capsella bursa-pastoris*, and *Senecio vulgaris*, and SLRV through the seed of *Mentha arvensis*.

Thomas, P. R. 1969. Crop and weed plants compared as hosts of viruliferous *Longidorus elongatus* (de Man). Phytopathol., 18:23-28. (166)

Crops and weeds were compared as hosts for *Longidorus elongatus* and the viruses it transmits, raspberry ringspot (RRV) and tomato black ring (TBRV). Strawberry, grasses, and clovers were the most favorable hosts for the nematode. All the weeds, including *Brassica sinapis*, *Lamium amplexicaule*, *Mentha arvensis*, *Stellaria media*, *Tussilago farfara*, and *Urtica dioica*, except *Agropyron repens*, supported significantly greater populations of *Longidorus elongatus* than the fallow control. The frequency of infection of both the RRV and TBRV was generally highest among the weeds.

Thomas, P. R. 1970. Host status of some plants for *Xiphinema diversicaudatum* (Micol.) and their susceptibility to viruses transmitted by this species. Ann. Appl. Biol., 65:169-178. (167)

Forty herbaceous and woody crop and weed species were compared as hosts for the nematode *Xiphinema diversicaudatum* carrying arabis mosaic virus (AMV) and strawberry latent ring-spot virus (SLRV). One or the other of the two host-specificity experiments indicated that the nematode multiplied on relatively more woody perennials than on herbaceous crop plants or weeds. The weeds that showed increasing populations of the nematodes were *Poa annua*, *Stellaria media*, *Matricaria matricariodes*, and *Tussilago farfara*. *Stellaria media*, *Brassica sinapis*, *Capsella bursa-pastoris*, and *Poa annua* become more frequently infected with AMV than with SLRV, while the reverse was true of *Viola tricolor*. *Mentha arvensis* was a poor host for the nematode, but infection by the viruses still occurred. Signs of *Xiphinema diversicaudatum* were evident on many of the test plants, including *Poa annua*, *Stellaria media*, and *Veronica* sp.

Thomason, I. J. and S. D. Van Gundy. 1961. Arrowhead, *Pluchea sericea*, on the Colorado River is a host for root-knot nematodes. Plant Dis. Rep., 45:577. (168)

Meloidogyne javanica and *Meloidogyne incognita*, both important plant parasitic nematodes on crop plants in California, formed galls and egg masses on arrowhead along the Colorado River.

Townshend, J. L. and T. T. Davidson. 1960. Some weed hosts of *Pratylenchus penetrans* in Premier strawberry plantations. Can. J. Bot., 38:267-273. (169)

Pratylenchus penetrans was found in the roots of 55 weed and 7 cultivated plant species belonging to 52 genera in 23 families. The plants varied greatly in susceptibility and in suitability as food. The number of nematodes per gram of dried root ranged from 7 in *Sisymbrium altissimum* to 27,680 in *Rorippa sylvestris*. In general weeds with soft-textured roots contained more nematodes per gram of root, had more extensive lesions, and appeared more susceptible to injury than did those with hard-textured roots. Roots of perennial weeds usually had soft-textured roots and contained greater nematode populations than roots of annual weeds. The following weed species contained the greatest number of nema per gram of host root tissue:

<i>Anthemis cotula</i>	<i>Hieracium pratense</i>	<i>Potentilla norvegica</i>
<i>Capsella bursa-pastoris</i>	<i>Hypericum punctatum</i>	<i>Ranunculus abortivus</i>
<i>Cerastium vulgatum</i>	<i>Lactuca scariola</i>	<i>Rorippa sylvestris</i>
<i>Chenopodium album</i>	<i>Lamium amplexicaule</i>	<i>Rumex crispus</i>
<i>Cichorium intybus</i>	<i>Lepidium campestre</i>	<i>Senecio vulgaris</i>
<i>Cirsium arvense</i>	<i>Malva neglecta</i>	<i>Solidago</i> spp.
<i>Daucus carota</i>	<i>Medicago lupulina</i>	<i>Sonchus arvensis</i>
<i>Epilobium</i> sp.	<i>Onopordum acanthium</i>	<i>Sonchus oleraceus</i>
<i>Erigeron annuus</i>	<i>Plantago major</i>	<i>Stellaria media</i>
<i>Erigeron strigosus</i>	<i>Polygonum persicaria</i>	<i>Taraxacum officinale</i>
<i>Gnaphalium uliginosum</i>		

Townshend, J. L. and R. R. Davidson. 1962. Some weed hosts of the northern root-knot nematode, *Meloidogyne hapla*, 1949, in Ontario. Can. J. Bot., 40:543-548. (170)

Fifty-five species of weeds were grown in pots of soil uniformly infested with *Meloidogyne hapla* for 50 days. Observations were then made on thickness of the roots, number and size of galls, and number of larvae hatching per gall when

portions of the roots were incubated for 4 weeks. Similar observations were made on the same weeds in an infested field. The following 41 species proved to be hosts, 23 as new hosts:

<i>Alliaria officinalis</i>	<i>Daucus carota</i>	<i>Polygonum aviculare</i>
<i>Amaranthus retroflexus</i>	<i>Epilobium</i> sp.	<i>Polygonum convolvulus</i>
<i>Anthemis cotula</i>	<i>Galinsoga ciliata</i>	<i>Polygonum persicaria</i>
<i>Arctium minus</i>	<i>Hieracium aurantiacum</i>	<i>Rumex crispus</i>
<i>Artemisia biennis</i>	<i>Hieracium pratense</i>	<i>Sisymbrium altissimum</i>
<i>Barbarea vulgaris</i>	<i>Hypericum punctatum</i>	<i>Solanum dulcamara</i>
<i>Brassica kaber</i>	<i>Lactuca scariola</i>	<i>Sonchus arvensis</i>
<i>Capsella bursa-pastoris</i>	<i>Leonurus cardiaca</i>	<i>Stellaria media</i>
<i>Cerastium vulgatum</i>	<i>Lychnis alba</i>	<i>Taraxacum officinale</i>
<i>Chelidonium majus</i>	<i>Medicago lupulina</i>	<i>Thlaspi arvense</i>
<i>Chrysanthemum leucanthemum</i>	<i>Nepeta cataria</i>	<i>Tragopogon porrifolius</i>
<i>Cichorium intybus</i>	<i>Plantago lanceolata</i>	<i>Veronica arvensis</i>
<i>Cirsium arvense</i>	<i>Plantago major</i>	<i>Veronica peregrina</i>
<i>Cirsium vulgare</i>		<i>Vicia villosa</i>

Tulaganov, A. T. 1954. (Results and prospects of investigations into the nematodes of cultivated plants in Uzbekistan.) Tr. Probl. Temat. Soveshch. Akad. Nauk. SSSR Zool. Inst., 3:161-170. (171)

Literature on plant parasitic and soil nematodes for Uzbekistan since 1930 was reviewed. The results listed 111 plant parasitic and soil nematodes. Plants examined in the Fergana Valley showed 60 species of crops and weeds to be infested with *Heterodera marioni*. A list of the hosts was included.

Upchurch, R. P., F. L. Selman, and H. L. Webster. 1970. Utility of maintained weed infestations under field conditions. Weed Sci., 18:206-214. (172)

Eight weed species were used to evaluate various herbicides. Distinctive patterns of nematode infestation were observed as a function of weed species. For example, the lesion nematode *Pratylenchus zeae* was encouraged by *Digitaria ischaemum* and *Eleusine indica*; the stunt nematode *Tylenchorhynchus claytoni* was found near *Xanthium pennsylvanicum* and *Ambrosia artemisifolia*; the spiral nematode *Helicotylenchus manni* was found in the presence of *Ambrosia artemisifolia* and *Ipomoea hederacea*; the stubby root nematode *Trichodorus christici* was encouraged by *Digitaria ischaemum*; and the ring nematode *Criconeoides* spp. was present near *Digitaria ischaemum*, *Eleusine indica*, and *Xanthium pennsylvanicum*.

Valleau, W. D. and E. M. Johnson. 1946. Tobacco diseases in Kentucky, 1946. Plant Dis. Rep., 30:465-467. (173)

Pratylenchus pratensis was abundant in tobacco roots of several burley varieties in brown root-rot plots and in several unspecified grasses, legumes, and weeds at Lexington, Ky.

Van Der Meer, F. A. 1965. Investigations of current viruses in the Netherlands. II. Further observations on spoon leaf virus, transmitted by the nematode *Longidorus elongatus*. Netherlands J. Plant Pathol., 71:33-46. (174)

Spoon leaf virus is the causative agent of the disease in red currant, some raspberry varieties, and a number of weed species, which is transmitted by *Longidorus elongatus*. The virus was transmitted experimentally, using hand-picked *Longidorus elongatus*, to *Chenopodium quinoa*, sugar beet, spinach, *Stellaria* sp. and currant seedlings.

Vanterpool, T. C. 1948. *Ditylenchus radicicola* (Greeff) Filipjev, a root-gall nematode new to Canada found on wheat and other Gramineae. Sci. Agr., 28:200-205. (175)

Two new hosts of the root-gall nematode *Ditylenchus radicicola* (*Anguillulina radicicola*) were recorded. They are *Agropyron smithii* and *Agropyron cristatum*. Both species were found to be infested by the nematode in the field and in greenhouse studies in Saskatchewan, Canada.

Videgard, G. 1967. Havre cystnematoden angriper all varsäd. Växtskyddsnotiser, 31:88-90. (176)

Heterodera avenae, mainly a parasite of spring sown cereals in Sweden, was also found on *Avena fatua* and some other grasses.

Vinduska, L. 1967. Weeds and the sugar beet eelworm *Heterodera schachtii* Schmidt. Ochr. Rostl., 3-219-224. (177)

Heterodera schachtii was found to be hosted by 17 weed species including *Chenopodium album* and *Galinsoga parviflora*. The nematode preferred sugar beet, winter rape, fodder beet, kale, and kohlrabi to *Sinapis arvensis*, *Thlaspi arvense*, *Atriplex nitens*, *Chenopodium glaucum*, and other weed species.

Walker, J. C. 1927. Diseases of cabbage and related plants. U. S. Dept. Agr., Farmer's Bull. 1439, 30 pp. (178)

Anthemis cotula, *Cardiospermum halicacabum*, *Passiflora incarnata*, *Portulaca oleracea*, and *Richardia scabra* were susceptible to *Heterodera marioni*, a nematode responsible for root-knot on cabbage in the U.S.

Walton, C. L. 1938. The origin of infestation by the oat strain of the eelworm *Anguillulina dipsaci* (Kühn). Res. Sta. Rep., Long Ashton, pp. 85-92. (179)

Continued infestation of *Anguillulina dipsaci* was attributed to weeds such as: *Brassica sinapis*, *Convolvulus arvensis*, *Galium aparine*, and *Veronica agrestis*.

Wilson, G. F. 1937. The root-knot eelworm, *Heterodera marioni* (Cornu) Goodey, and its relation to plants growing outdoors in the British Isles and in certain European countries. J. Roy. Hort. Soc., 62:336-346. (180)

Three species of weeds were listed that have been recorded as hosts of *Heterodera marioni* under field and garden culture conditions in the British Isles.

Winslow, R. D. 1954. Provisional lists of host plants of some root eelworms (*Heterodera* spp.). Ann. Appl. Biol., 41:591-605. (181)

Heterodera schachtii infected nearly all members of the Cruciferae tested as well as plants in the families Amaranthaceae, Caryophyllaceae, Chenopodiaceae, Labiatae, Phytolaccaceae, Polygonaceae, Scrophulariaceae, and Tropaeolaceae.

Heterodera cruciferae infected nearly all Cruciferae tested and a few Labiatae.

Heterodera trifolii and *Heterodera schactii* var. *galeopsidis* attacked members of the Carophyllaceae, Labiatae, Leguminosae, Polygonaceae, and Scrophulariaceae.

Heterodera rostochiensis cysts were found only on *Solanum* spp. and *Lycopersicum* spp.

Heterodera carotae only attacked *Daucus* spp.

Heterodera humuli only attacked *Humulus*, *Cannabis*, and *Urtica*.

Heterodera göttingiana only attacked *Lathyrus*, *Lens*, *Pisum*, and *Vicia*.

Heterodera major attacked a variety of grasses.

Yeates, G. W., J. D. Stout, D. J. Ross, M. E. Dutch, and R. F. Thomas. 1976. Long-term effects of paraquat-diquat and additional weed control treatments on some physical, biological, and respiratory properties of soil previously under grass. New Zealand J. Agri. Res., 19(1):51-61. (182)

The abundance and diversity of the nematode fauna declined in plots treated with herbicides every 3 weeks for 6 years in New Zealand.

Young, P. A. 1946. Tomato disease in Texas. Texas Agri. Exp. Sta., Circ. 113, 66 pp. (183)

Fallowing was not recommended for control of *Heterodera marioni* in tomatoes because it did not control root-knot susceptible weeds.

Young, R. A., D. C. Torgeson, and C. G. Anderson. 1950. Meadow nematodes (*Pratylenchus* sp.) on mazzard cherry and forage plants and weeds in nursery rotations. Plant Dis. Rep., 34:230-231. (184)

Pratylenchus sp. was found on *Centaurea cyanus*, *Polygonum convolvulus*, *Cardamine breweri*, *Stellaria media*, *Anthemis cotula*, *Chenopodium album*, and *Brassica campestris* in field tests in Oregon.

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Authors' names and the names of weeds, nematodes, and crops, plus key descriptive words, are listed alphabetically in the left-hand column, with the serial number of the citation and the year of publication in the columns at the right.

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BELONOLAIMUS-LONGICAUDATUS HOP	138	1964
BETA BRASSICA CRUCIFERAE CHENOPODIACEAE	118	1957
BIDENS-PILOSA CASSIA-OCCIDENTALIS	058	1935
BIRCHFIELD. CITRUS-ROOT-NEMATODE	027	1957
BIRCHFIELD. CYST-NEMATODE HETERODERA-GRA	016	1973
BIRCHFIELD. MARTIN. SUGARCANE HOST SORGH	018	1956
BIRCHFIELD. TYLENCHORHYNCHUS-SP. SUGARCA	017	1954
BIRD. HOGGER. NUTSEDGES HOSTS CYPERUS-ES	019	1973
BIRD. WEED HOSTS COTTON SOYBEAN CYPERUS-	074	1976
BIRD. WEEDS COVERCROPS HOSTS SOYBEAN COT	075	1974
BISWAS. WEED CROP-PLANTS HOSTS	134	1970
BLANTON. WEEDS CARRIERS BULB STEM-NEMATO	029	1934
BLUMEA-SP. ECHINOCHLOA-COLONUM	134	1970
BOSHER. HETERODERA HOST VICIA-SP.	068	1952
BRACHIARIA-RAMOSA* MATHUR. PRASAD. HOST	110	1974
BRANDE. ONSEM. DITYLENCHUS-DIPSACI ANGUI	020	1947
BRASSICA CRUCIFERAE CHENOPODIACEAE AMARA	118	1957
BRASSICA-CERNUA CARDAMINE-IMPATIENS CHEI	124	1955
BRASSICA-JUNCEA CAPSELLA-BURSA-PASTORIS	055	1958
BRASSICA-KABER STELLARIA	054	1955
BRASSICA-KABER CAPSELLA-BURSA-PASTORIS	170	1962
BRASSICA-NAPUS BRASSICA-NIGRA CANNABIS-S	123	1966
BRASSICA-NIGRA HIBISCUS-TRIONUM PASTINAC	044	1964
BRASSICA-NIGRA BRASSICA-RAPA CAPSELLA-BU	091	1945
BRASSICA-NIGRA CANNABIS-SATIVA	123	1966
BRASSICA-RAPA CAPSELLA-BURSA-PASTORIS	091	1945
BRASSICA-SINAPIS LAMIMUM-AMPLEXICAULE MEN	166	1969
BRASSICA-SINAPIS CAPSELLA-BURSA-PASTORIS	167	1970
BRASSICA-SINAPIS CONVULVULUS-A	179	1938
BRASSICA-SP. CARDUUS-SPP. CAREX-SPP. CHE	036	1937
BRASSICA-SPP. CHENOPODIUM-SPP.	002	1968
BRASSICA-SPP. CHENOPODIUM-ALBUM PORTULAC	135	1948
BRATLEY. WEEDS ROOT-KNOT TOBACCO HETEROD	021	1946
BROMUS-INERMIS BARLEY POA-PRATENSIS LO	155	1967
BROMUS-MADRITENSIS CEREALS* GOODEY. ANG	065	1936
BROMUS-SECALINUS BROMUS-TECTORUM CAPSE	039	1967
BROMUS-STERILIS HORDEUM-SP.	089	1934
BROMUS-TECTORUM CAPSELLA-BURSA-PASTORISS	039	1967
BROMUS-UNIOLOIDES* EDWARDS. STEM-NEMATO	045	1932
BROOKS. HOSTS BURROWING-NEMATODE RADOPHO	022	1955
BROOKS. RADOPHOLUS-SIMILIS CITRUS WEEDS*	163	1954
BROWN. CLOVER DITYLENCHUS-DIPSACI TRIFOL	023	1954
BROWN. HENBANE STEM-EELWORMS DITYLENCHUS	024	1956
BULB STEM-NEMATODE NARCISSUS ANGUILLIL	029	1934
BULB-ELLWORM ANGUILLULINA-DIPSACI WEEDS	087	1940
BULBOUS-IRIS MENTHA-ARVENSIS SONCHUS-ARV	063	1951
BURCKHART. LEAF-EELWORM WEEDS WILD-PLANT	025	1967
BURROWING-NEMATODE RADOPHOLUS-SIMILIS	022	1955
CABBAGE ANTHEMIS-COTULA CARDIOSPERMUM-HA	178	1927
CABBAGE* SOLOVEGA. WEEDS CABBAGE* SOLO	156	
CAMPIS-RADICANS CAP	074	1976
CANAIGRE MELOIDOGYNE-INCOG	137	1951
CANNABIS URTICA HETERO	181	1954
CANNABIS-SATIVA CARDARIA-D	123	1966

CAPSELLA-BURSA-PASTORIS SUGAR-BEET	H	007	1952
CAPSELLA-BURSA-PASTORIS CHENOPODIUM-ALBU		025	1967
CAPSELLA-BURSA-PASTORIS		039	1967
CAPSELLA-BURSA-PASTORIS	CENTAURE	055	1958
CAPSELLA-BURSA-PASTORIS ERODIUM-CICUTARI		068	1952
CAPSELLA-BURSA-PASTORIS CASSIA-OBTUSIFOL		074	1976
CAPSELLA-BURSA-PASTORIS	CHENOPODI	091	1945
CAPSELLA-BURSA-PASTORIS		158	1950
CAPSELLA-BURSA-PASTORIS		165	1968
CAPSELLA-BURSA-PASTORIS VIOLA-TRICOLOR		167	1970
CAPSELLA-BURSA-PASTORIS CERASTIUM-VULGAT		169	1960
CAPSELLA-BURSA-PASTORIS	CERASTIUM-VUL	170	1962
CARDAMINE-IMPATIENS CHEIRANTHUS-ALPINUS		124	1955
CARDAMINE-PARVIFLORA	CL	139	1966
CARDARIA-DRABA CIRSIIUM-ALTISSIMUM FAGOPY		123	1966
CARDIUSPERMUM-HALICACABUM	PASSIFLORA-I	178	1927
CARDUUS-SPP. CAREX-SPP. CHENOPODIUM-ALBU		036	1937
CAREX-SPP. CHENOPODIUM-ALBUM	CICHOR	036	1937
CARRIERS BULB STEM-NEMATODE	NARCISSUS	029	1934
CARROT ALFALFA	RED-CLOVER FIELD	049	1964
CARROTS GALINSOGA-PARVIFLORA*	KEMPER, M	095	1958
CARTER, HOST WEEDS CORN PRATYLENCHUS-ZEA		111	1961
CARYOPHYLLACEAE POLYGONACEAE PORTULACACE		118	1957
CARYOPHYLLACEAE CHENOPODIACEAE	LABIA	181	1954
CASSIA-OBTUSIFOLIA	CASS	074	1976
CASSIA-OCCIDENTALIS	CHAETO	058	1935
CASSIA-OCCIDENTALIS CERASTIUM-VULGATUM C		074	1976
CASTERBEAN	CROTOLARIA-SPE	111	1961
CAVENESS, HOST* CAVENESS, HOST* CAVENE		026	1967
CELOSIA-ARGENTIA CLEOME-VISCOA AGERATUM		145	1960
CELOSIA-NITIDA DESMODIUM-SP. PSIDIUM-GUA		022	1955
CENTAUREA-HYALOLEPIS CICHORIUM-PUMILUM L		115	1943
CENTAUREA-MACULOSA CHENOPODIUM-ALBUM		055	1958
CENTAUREA-REPENS CHENOPODIUM-ALBUM CONVO		049	1964
CERASTIUM-ARVENSE	CER	064	1947
CERASTIUM-ARVENSE GALIUM-APARINE	STE	159	1945
CERASTIUM-VULGATUM GALIUM-APARINE		009	1968
CERASTIUM-VULGATUM CHENOPODIUM-ALBUM		039	1967
CERASTIUM-VULGATUM GALIUM-APARINE POLYGO		064	1947
CERASTIUM-VULGATUM CHENOPODIUM-ALBUM		074	1976
CERASTIUM-VULGATUM CIRSIIUM-ARVENSE GALIU		158	1950
CERASTIUM-VULGATUM	CHEN	169	1960
CERASTIUM-VULGATUM CHELIDONIUM-MAJUS		170	1962
CEREAL DITYLENCHUS-DIPSACI STELLARIA-MED		108	1958
CEREAL-ROOT-EELWORM	DAC	071	1958
CEREAL-ROOT-EELWORM	HETE	100	1947
CEREALS AVENA-FATUA*	VIDEGARD, HETERODE	176	1967
CEREALS BROMUS-INERMIS	BARLEY POA-PRAT	155	1967
CEREALS FARM-CROPS DITYLENCHUS-DIPSACI		009	1968
CEREALS* GOODEY, ANGUILLULINA-DIPSACI H		065	1936
CHAETOCHLOA-VERTICILLATA CHLORIS-GAYANA		058	1935
CHEIRANTHUS-ALPINUS	DIANTHUS-BARBATU	124	1955
CHELIDONIUM-MAJUS		170	1962
CHENOPODIACEAE AMARANTHACEAE		118	1957
CHENOPODIACEAE	LABIATAE PHYTOLACCACE	181	1954
CHENOPODIUM	CYNODON CYPERUS GLYCYRRHIZ	093	1969

CHENOPODIUM-ALBUM	CONVOLVULUS-SP. SENE	025	1967
CHENOPODIUM-ALBUM		029	1934
CHENOPODIUM-ALBUM	CIRSIUM-ARVENS	034	1973
CHENOPODIUM-ALBUM	CICHORIUM-INTYBUS	036	1937
CHENOPODIUM-ALBUM		039	1967
CHENOPODIUM-ALBUM	CONVOLVULUS-ARENSISS	049	1964
CHENOPODIUM-ALBUM	BRASSICA-KABER	054	1955
CHENOPODIUM-ALBUM		055	1958
CHENOPODIUM-ALBUM*	GOLDEN. SHAFER. HETE	062	1958
CHENOPODIUM-ALBUM	CR	066	1951
CHENOPODIUM-ALBUM	CYNODON-DACTYLON CY	074	1976
CHENOPODIUM-ALBUM	CHENOPODIUM-POLYSPERMU	091	1945
CHENOPODIUM-ALBUM	PORTULACA-SP. RUMEX-SP	135	1948
CHENOPODIUM-ALBUM	GALIUM-APARINE	143	1959
CHENOPODIUM-ALBUM	OPUNTIA-TORTISPINA	150	1956
CHENOPODIUM-ALBUM	CICHORIUM-INTYBUS HIER	169	1960
CHENOPODIUM-ALBUM	GALINSOGA-PARVIFLORA S	177	1967
CHENOPODIUM-AMARANTICOLOR*	NAGVI. ALAM.	120	1974
CHENOPODIUM-AMBROSIODES	CIRSIUM-ARVENSE	055	1958
CHENOPODIUM-GLAUCUM	LAPPULA-SP. RUMEX-CR	060	1951
CHENOPODIUM-GLAUCUM	DAUCUS-CAROTA ERIGER	148	1960
CHENOPODIUM-GLAUCUM*	VINDUSKA. WEEDS SU	177	1967
CHENOPODIUM-HYBRIDUM	CAPSELLA-BURSA-PAST	007	1952
CHENOPODIUM-POLYSPERMUM		091	1945
CHENOPODIUM-QUINOA	SUGAR-BEET SPI	174	1965
CHENOPODIUM-RUBRUM	COCHLEARIA-ARMORACIA	091	1945
CHENOPODIUM-SPP.	PORTULACA-OLERACEA SOLA	002	1968
CHITWOOD.	BIRCHFIELD. CITRUS-ROOT-NEMATO	027	1957
CHLORIS-GAYANA	CLEOME-GYNANDRA COMME	058	1935
CHOUDHARY.	ROOT-KNOT-NEMATODES POTATOES	131	1958
CHRISTIE.	ANGUILLULINA-SPP. ANGUINA-SPP.	036	1937
CHRISTIE.	THAMES. TOBACCO XANTHIUM-SP.	164	1958
CHRYSANTHEMUM-LEUCANTHEMUM	DIGITARIA-SAN	029	1934
CHRYSANTHEMUM-LEUCANTHEMUM	CYNOGLOSSUM-O	039	1967
CHRYSANTHEMUM-LEUCANTHEMUM	CICHORIUM-INT	170	1962
CICHORIUM-INTYBUS	CIRSIUM-SPP. CREPIS-SP	036	1937
CICHORIUM-INTYBUS	HIERACIUM-PRATENSE	169	1960
CICHORIUM-INTYBUS	CIRSIUM	170	1962
CICHORIUM-PUMILUM	LATHYRUS-OCRUS L	115	1943
CIRSIUM-ALTISSIMUM	FAGOPYRUM-SAGITTATUM	123	1966
CIRSIUM-ARVENSE	FESTUCA-RUBRA 'GALEOPSIS-	034	1973
CIRSIUM-ARVENSE	CIRSIUM-VULGARE CONVO	055	1958
CIRSIUM-ARVENSE	GALIUM-APARINE	158	1950
CIRSIUM-ARVENSE	DAUCUS-CAROTA	169	1960
CIRSIUM-ARVENSE	CIRSIUM-VULGARE DAUCUS-C	170	1962
CIRSIUM-SPP.	CREPIS-SPP.	036	1937
CIRSIUM-VULGARE	CONVOLVULUS-SEPIUM DA	055	1958
CIRSIUM-VULGARE	DAUCUS-CAROTA	170	1962
CITRUS WEEDS*	SUIT. DUCHARME. BROOKS. R	163	1954
CITRUS-NEMATODE	TYLENCHU	161	1966
CITRUS-ROOT-NEMATODE	TY	027	1957
CLAYTON.	SHAW. SMITH. GAINES. GRAHAM. TO	028	1944
CLEOME-GYNANDRA	COMMELINA-NUDIFLORA	058	1935
CLEOME-SERRULATA	DIGITALIS-SP. GERANIUM-	139	1966
CLEOME-VISCOsa	TYLENCHORHYNCHUS MELOIDOG	133	1960
CLEOME-VISCOsa	AGERATUM-CONYZOIDES	145	1960

CLOVER DITYLENCHUS-DIPSACI TRIFOLIUM-REP	023	1954
CLOVER HIERACIUM-GRONOVII ANGUILLULINA-D	157	1949
CLOVER-STEM-EELWORM AGROSTEMMA-GITHAGO	107	1945
CLOVERS BRASSICA-SINAPIS	166	1969
COBB, STEINER, BLANTON, WEEDS CARRIERS B	029	1934
COCHLEARIA-ARMORACIA CORONOPUS-RUELLII	091	1945
COLBRAN, PRATYLENCHUS-COFFEAE APPLE-TREE	030	1954
COLBRAN, ROOT-KNOT-NEMATODES MELOIDOGYNE	031	1956
COLEUS-PERVIFLORUS MELOIDOGYNE-INCOGNITA	131	1958
COLLINS, TOBACCO-EELWORM HETERODERA-MARI	032	1938
COLLOMIA-GRADIFLORA* COURTNEY, TEASEL-N	035	1952
COLOCASIA-ESCULENTA* CONOVER, WOLFENBAR	033	1950
COLUMBIA-LANCE-NEMATODE HOPL	048	1974
COMMELINA-NUDIFLORA CROTALARIA-SALTIANA	058	1935
CONOVER, WOLFENBARGER, ROOT-KNOT-NEMATOD	033	1950
CONVOLVULUS-ARENSISS CROTALARIA-SPEC	049	1964
CONVOLVULUS-ARVENSIS MERCURIALIS-ANNU	143	1959
CONVOLVULUS-ARVENSIS GALIUM-APARINE VERO	179	1938
CONVOLVULUS-SEPIUM DAUCUS-CAROTA DIGITAR	055	1958
CONVOLVULUS-SP, SENEIO-VULGARIS SOLANUM	025	1967
COOPER, HARRISON, WEED-HOSTS VIOLA-ARVEN	034	1973
CORN MILO CYNODON-DACTYLON TRIBU	011	1961
CORN PRATYLENCHUS-ZEAE PRATYLENCHUS-BR	111	1961
CORONOPUS-RUELLII ERYSIMUM-CHEIRANTHOI	091	1945
CORYPHANTHA-VIVIPARA* SCHUSTER, THORNE,	150	1956
COTTON MELOIDOGYNE-INCOGNITA STE	075	1974
COTTON SOYBEAN CYPERUS-SPP, SORGH	074	1976
COURTNEY, TEASEL-NEMATODE DITYLENCHUS-DI	035	1952
COVERCROPS HOSTS SOYBEAN COTTON	075	1974
CREPIS-SPP, CYPERUS-ROT	036	1937
CRICONEMOIDES-ONOENSIS	078	1972
CRICONEMOIDES-ONOENSIS* HOLLIS, WEEDS R	079	1972
CRICONEMOIDES-SPP,* UPCHURCH, SELMAN, W	172	1970
CROGOPHORA-SP BRACHIARIA-RAMOSA* MATHUR	110	1974
CROP WEED-PLANTS HOSTS LONGIDORUS-ELONGA	166	1969
CROP* SASSER, TOBACCO CROP* SASSER, TO	146	1950
CROP-PLANTS HOSTS RICE-R	134	1970
CROPS BELONOLAIMUS-	076	1953
CROPS PRATYLENCHUS	113	1969
CROPS HOPLOLAIMUS-COLUMBUS	073	1976
CROPS WEEDS HETERODERA-MARIONI* TULAGAN	171	1954
CROPS* FRANKLIN, INTERRELATIONSHIPS NEM	052	1970
CROSSMAN, CHRISTIE, ANGUILLULINA-SPP, AN	036	1937
CROTALARIA-SALTIANA CYNODON-DACTYLON	058	1935
CROTALARIA-SPECTABILIS V	048	1974
CROTALARIA-SPECTABILIS IVA-SANTHIFOLIA L	049	1964
CROTALARIA-SPECTABILIS DACTYLOCTENIUM-AE	066	1951
CROTALARIA-SPECTABILIS HELIANTHUS-SP, PH	111	1961
CRUCIFERAE AMARANTHACEAE CARYOPHYLLACEAE	181	1954
CRUCIFERAE CHENOPODIACEAE AMARANTHACEAE	118	1957
CUCUMBERS* DORST, HOFF, XIPHINEMA-DIVER	041	1965
CUCUMIS-SATIVUS XIPHENEMA-AMERI	140	1970
CUNNINGHAM, MAI, POTATO HETERODERA-ROSTO	037	1947
CURRENT* VAN-DER-MEER, LONGIDORUS-ELONG	174	1965
CYNODON CYPERUS GLYCYRRHIZA PICRIS RUBUS	093	1969
CYNODON-DACTYLON TRIBULUS-TERRES	011	1961

CYNODON-DACTYLON	CYPERUS-STRIGOSUS	DA	058	1935
CYNODON-DACTYLON	CYPERUS-SPP.	DIGITARIA-	074	1976
CYNODON-DACTYLON	DIGITARIA-SP.*	HOLDEMA	076	1953
CYNODON-DACTYLON	PASPALUM-DILATATUM	DAC	077	1953
CYNOGLOSSUM-OFFICINALE	DAUCUS-		039	1967
CYPERUS GLYCYRRHIZA	PICRIS	RUBUS	093	1969
CYPERUS-ARTICULATUS	FUIRENA-SP.		079	1972
CYPERUS-ESCULENTUS	HOPLOLAIMU		019	1973
CYPERUS-ESCULENTUS	CYPERUS-ROTUNDUS	HOPL	075	1974
CYPERUS-ESCULENTUS*	MINTON.	TUCKER.	114	1973
CYPERUS-HASPAN	CYPERUS-ARTICULATUS	FUIRE	079	1972
CYPERUS-IRIA	CYPERUS-HASPAN	CYPE	079	1972
CYPERUS-ROTUNDUS		M	019	1973
CYPERUS-ROTUNDUS	DIPSACUS-SILVESTRIS	FIC	036	1937
CYPERUS-ROTUNDUS	HOPLOLAIMUS-COLUMBUS		075	1974
CYPERUS-ROTUNDUS	ERIGERON-ALBIDUS		103	1939
CYPERUS-ROTUNDUS	MELOIDOGYNE-INCOGNITA*		138	1964
CYPERUS-SPP.	SORGHUM-HALEPENSE	ME	074	1976
CYPERUS-SPP.	DIGITARIA-SANGUINALIS		074	1976
CYPERUS-SPP.	FUIRENA-SP.*	HOLLIS.	078	1972
CYPERUS-SPP.	SORGHUM-HALEPENSE		073	1976
CYPERUS-STRIGOSUS	DATURA-STRAMONIUM	DESM	058	1935
CYST-FORMING-SPECIES	HETERODERA		053	1951
CYST-NEMATODE	HETERODERA-GRAMINOPHILA	GR	016	1973
DACTYLIS-GLOMERATA	LOLIUM-ITALICUM	LOLIU	071	1958
DACTYLOCTENIUM-AEGYPTIUM		DIO	066	1951
DACTYLOCTENIUM-AEGYPTIUM			077	1953
DATURA-STRAMONIUM	DESMODIUM-TRIFLORUM		058	1935
DAUCUS-CAROTA	LINARIA-VULGARI		070	1951
DAUCUS-CAROTA	EPILOBIUM-SP.		169	1960
DAUCUS-CAROTA	EPILOBIUM-SP		170	1962
DAUCUS-CAROTA	DESCURAINIA-SOPHIA	EPILOBI	039	1967
DAUCUS-CAROTA	DIGITARIA-SANGUINALIS		055	1958
DAUCUS-CAROTA	ERIGERON-ANNUUS		148	1960
DAUCUS-SPP.	HETERODERA-HUMULI		181	1954
DAULTON.*	DAULTON.*	DAULTON.*	038	1955
DAVIDSON.	GRASS-HOSTS		128	1969
DAVIDSON.	TOWNSHEND.	WEED-HOSTS'	039	1967
DAVIDSON.	WEED-HOSTS	PRATYLENCHUS-PENETR	169	1960
DAVIDSON.	WEED-HOSTS		170	1962
DESCURAINIA-SOPHIA	EPILOBIUM-SP.		039	1967
DESMODIUM-SP.	PSIDIUM-GUAJAVA		022	1955
DESMODIUM-TORTUOSUM	CYNODON-DACTYLON	PA	077	1953
DESMODIUM-TRIFLORUM	EMILIA-SONCHIFOL		058	1935
DIANTHUS-BARBATUS	DIANTHUS-PLUMARIS	POLY	124	1955
DIANTHUS-PLUMARIS	POLYGONUM-CONVOLVULUS		124	1955
DIGITALIS-PURPUREA*	MACMILLAN.	DRUG-PLA	109	1941
DIGITALIS-SP.	GERANIUM-MACULATUM		139	1966
DIGITARIA ECHINOCHLOA	PANAGROLAIMUS-ZEAE		056	1971
DIGITARIA-ISCHAEMUM		DIG	113	1969
DIGITARIA-ISCHAEMUM	ELEUSINE-INDIC		172	1970
DIGITARIA-SANGUINALIS		ERECHTI	029	1934
DIGITARIA-SANGUINALIS	ECHINOCHLOA-C		055	1958
DIGITARIA-SANGUINALIS			066	1951
DIGITARIA-SANGUINALIS	ELEUSINE-I		074	1976
DIGITARIA-SANGUINALIS	DESMODIUM-TORTUOSU		077	1953

DIGITARIA-SANGUINALIS*	MILLER. AHERNS.	113	1969
DIGITARIA-SP. HETERODERA-MARIONI*	CLAYT	028	1944
DIGITARIA-SP.*	HOLDEMAN. GRAHAM. STING-	076	1953
DIODIA-TERES EREMOCHLOA-OPHIUROIDES FRAG		066	1951
DIODIA-TERES MELOIDOGYNE-SPP.*	SASSER.	147	1955
DIPSACUS-FULLONUM COLLOMIA-GRADIFLORA*		035	1952
DIPSACUS-SILVESTRIS FICUS-SP.		036	1937
DIPSACUS-SYLVESTRIS*	MACLOGAN. CEREAL D	108	1958
DITYLENCHUS-DESTRUCTOR SONCHUS-ARVENSIS		008	1968
DITYLENCHUS-DESTRUCTOR BELLIS-PERENNIS R		042	1962
DITYLENCHUS-DESTRUCTOR IRIS	POTATO BUL	063	1951
DITYLENCHUS-DESTRUCTOR ALLIUM-CEPA DAUCU		070	1951
DITYLENCHUS-DESTRUCTOR	MENTHA-A	081	1947
DITYLENCHUS-DESTRUCTOR SOLANUM-NIGRUM		083	1973
DITYLENCHUS-DIPSACI APHELENCHOIDES-SUBTE		006	1952
DITYLENCHUS-DIPSACI	STELLARIA-ME	009	1968
DITYLENCHUS-DIPSACI	ALLIUM-VIN	013	1959
DITYLENCHUS-DIPSACI ANGUILLULINA-DIPSACI		020	1947
DITYLENCHUS-DIPSACI TRIFOLIUM-REPENS*	B	023	1954
DITYLENCHUS-DIPSACI	HYOSCYAMU	024	1956
DITYLENCHUS-DIPSACI OATS RYE	WHEAT	035	1952
DITYLENCHUS-DIPSACI*	DUNNING. BEET-STEM	043	1954
DITYLENCHUS-DIPSACI ONION SOYBEAN SNAPBE		044	1964
DITYLENCHUS-DIPSACI	DITYLE	093	1969
DITYLENCHUS-DIPSACI GARDEN-FLOWERS VEGET		102	1957
DITYLENCHUS-DIPSACI STELLARIA-MEDIA		108	1958
DITYLENCHUS-DIPSACI STELLARIA-MEDIA POLY		122	1957
DITYLENCHUS-DIPSACI AETHUSA-CYNAPIUM		143	1959
DITYLENCHUS-DIPSACI WEEDS HOST-RANGE*	S	144	1957
DITYLENCHUS-DIPSACI	HYACINTHUS-ORIEN	151	1957
DITYLENCHUS-DIPSACI	WEED-HOSTS RE	158	1950
DITYLENCHUS-DIPSACI CAPSELLA-BURSA-PASTO		158	1950
DITYLENCHUS-INTERMEDIUS PARAPHELENCHUS-P		093	1969
DITYLENCHUS-RADICICOLA ROOT-GALL-NEMATOD		175	1948
DITYLENCHUS-SPP. ROYTLENCHUS-SPP. TYLENC		036	1937
DORÉ. ANGUILLULA-AGROSTIS POA-COSTATA PO		040	1942
DORST. HOFF. XIPHINEMA-DIVERSICAUDATUM C		041	1965
DRUG-PLANTS HERBS HETERODERA-MARIONI		109	1941
DUCHARME. BROOKS. RADOPHOLUS-SIMILIS CIT		163	1954
DUGGAN. MOORE. HOST-RANGE TURER-ROT-EELW		042	1962
DUNNING. BEET-STEM-EELWORM STELLARIA-MED		043	1954
DUTCH. THOMAS. WEED-CONTROL*	YEATES. ST	182	1976
ECHINOCHLOA PANAGROLAIMUS-ZEAE*	GATEVA.	056	1971
ECHINOCHLOA-COLONUM SORGHUM-HALEPENSE*		016	1973
ECHINOCHLOA-COLONA CYPERUS-SPP. FUIRENA-		078	1972
ECHINOCHLOA-COLONUM CYPERUS-IRIA		079	1972
ECHINOCHLOA-COLONUM	ECHINO	134	1970
ECHINOCHLOA-CRUS-GALLI*	AYOUB. PRATYLEN	011	1961
ECHINOCHLOA-CRUSGALLI ELEUSINE-INDICA ER		055	1958
ECHINOCHLOA-CRUSGALLI ECLIPTA-ALBA	CR	110	1974
ECHINOCHLOA-CRUSGALLI ECLIPTA-ALBA ELEUS		134	1970
ECHINOCHLOA-CRUSGALLI*	STEINER. ROOT-KN	160	1934
ECHINOCHLOA-PUNGENS-MICROSTACHYA		128	1969
ECHINOCHLOA-PUNGENS-WIEGANDII ELYMUS-VIR		128	1969
ECLIPTA-ALBA	CROGOPHORA-SP BRACHIARIA	110	1974
ECLIPTA-ALBA ELEUSINE-INDICA	FI	134	1970

EDWARDS. STEM-NEMATODE LUCERNE TYLENCHUS	045	1932
EDWARDS. TAYLOR. HOST-RANGE STEM-NEMATOD	044	1964
EELWORM-SCAB POTATOES HETERODERA-MARIONI	126	1946
EGUNJOBI. MAIZE PRATYLENCHUS-BRACHYURUS	046	1974
ELEUSINE ANDROPOGAN DIGITARIA ECHINOC	056	1971
ELEUSINE-INDICA ERIGERON-CANADENSIS EU	055	1958
ELEUSINE-INDICA GERANIUM-CAROLINIÄNUM GN	074	1976
ELEUSINE-INDICA EMELISTA-TORA* KINCAID	098	1952
ELEUSINE-INDICA FIMBRISTYLIS-MI	134	1970
ELEUSINE-INDICA STUNT-NEMATODE TYLENCHOR	172	1970
ELLENBY. SOLANUM POTATO-ROOT-EELWORM	047	1954
ELYMUS-VIRGINICUS ELYMUS-WIE	128	1969
ELYMUS-WIEGANDII GLYCERIA-PULCHELLA HYST	128	1969
EMELISTA-TORA* KINCAID. TOBACCO PRATYLE	098	1952
EMILIA-SONCHIFOLIA EUPHORBIA-PRESSLII	058	1935
EMILIA-SONCHIFOLIA PORTULACA-OLERACEA*	104	1941
EPILOBIUM-SP. EUPHORBIA-SUP	039	1967
EPILOBIUM-SP. ERIGERON-ANNUUS ERIGERON-S	169	1960
EPILOBIUM-SP. GALINSOGA-CILIATA HIERACIU	170	1962
ERAGROSTIS-PILOSA* SETHI. GILL. SWARUP.	152	1964
ERECHTITES-HIERACIFOLIA ERIGERON-CANADEN	029	1934
EREMOCHLOA-OPHIUROIDES FRAGARIA-SP.	066	1951
ERIGERON-ALBIDUS EUPHORBIA-HIRTA P	103	1939
ERIGERON-ANNUUS LAMIUM-PURPUREUM	013	1959
ERIGERON-ANNUUS POTENTILLA-INT	148	1960
ERIGERON-ANNUUS ERIGERON-STRIGOSUS	169	1960
ERIGERON-CANADENSIS FAGO	029	1934
ERIGERON-CANADENSIS EUPHORBIA-MACULATA	055	1958
ERIGERON-CANADENSIS DIODIA-TERES MELOIDO	147.	1955
ERIGERON-STRIGOSUS GNAPHALIUM	169	1960
ERODIUM-CICUTARIUM* HASTINGS. BOSHER. H	068	1952
ERYSIMUM-CHEIRANTHOIDES GALEOPSIS-SPECIO	091	1945
EUPATORIUM-CAPILIFOLIUM P	140	1970
EUPHORBIA-HIRTA PANICUM-BARBINODE PORTUL	103	1939
EUPHORBIA-MACULATA EUPHORBIA-SUPINA HIBI	055	1958
EUPHORBIA-PRESSLII	058	1935
EUPHORBIA-SUPINA HORDEUM-JUBATUM HYPERIC	039	1967
EUPHORBIA-SUPINA HIBISCUS-TRIONUM	055	1958
FAGOPYRUM-SAGITTATUM KOCHIA-SCOPARI	123	1966
FAGOPYRUM-VULGARE GALINSOGA-PARVIFLORA L	029	1934
FARM-CROPS DITYLENCHUS-DIPSACI S	009	1968
FASSULIOTIS. HOST-RANGE COLUMBIA-LANCE-N	048	1974
FAULKNER. MCELROY. HOST-RANGE NORTHERN-R	049	1964
FEDER. PINCKARD. PRATYLENCHUS-SPP.* FEL	050	1956
FELDMESSER. FEDER. PINCKARD. PRATYLENCHU	050	1956
FESTUCA-RUBRA GALEOPSIS-TETRAHIT	034	1973
FICUS-SP. HELIANTHUS-ANNUUS	036	1937
FIELD-BEANS GALIUM-APARINE OAT ANGUILLU	088	1937
FIELD-PEA PEPPERMINT AMARANTHUS-GRAECIZA	049	1964
FIMBRISTYLIS-MILIACEA GRANGEA-MADRASPRAT	134	1970
FLUITER. MULHOLLAND. TYLENCHUS-COFFEAE	051	1941
FRAGARIA-SP. HETEROTHECA-SUBA	066	1951
FRANKLIN. CYST-FORMING-SPECIES HETERODER	053	1951
FRANKLIN. INTERRELATIONSHIPS NEMATODES W	052	1970
FUIRENA-SP. CRICONEMOIDES-O	079	1972
FUIRENA-SP.* HOLLIS. RICE WEEDS CRICONE	078	1972

FUMARIA-OFFICINALIS	MATRICARIA-INODORA*	083	1973	
GAHAN. ROOT-EELWORM	SUGAR-BEET HETERODER	054	1955	
GAINES. GRAHAM. TOBACCO	ROOT-KNOT DI	028	1944	
GALEOPSIS-SPECIOSA	LEPI	091	1945	
GALEOPSIS-TETRAHIT	HIERACIUM-	034	1973	
GALEOPSIS-TETRAHIT	LEPIDIUM-DRABA	143	1959	
GALINSOGA-CILIATA	HIERACIUM-AURANTIACUM	170	1962	
GALINSOGA-PARVIFLORA	LACTURA-CANADENSIS	029	1934	
GALINSOGA-PARVIFLORA*	KEMPER. MELOIDOGY	095	1958	
GALINSOGA-PARVIFLORA	POLYGONUM-CONVOLVUL	096	1959	
GALINSOGA-PARVIFLORA*	REINMUTH. HETEROD	136	1936	
GALINSOGA-PARVIFLORA	SUGAR-BEET RAPE	177	1967	
GALIUM-APARINE	AVENA-FATUA* S	009	1968	
GALIUM-APARINE	LAMIUM-ALBUM LA	025	1967	
GALIUM-APARINE	POLYGONUM-CONVOLVULUS	064	1947	
GALIUM-APARINE	OAT BEAN* JOHNSON. ANGUI	085	1936	
GALIUM-APARINE	STELLARIA-MEDIA OAT* JOH	087	1940	
GALIUM-APARINE	OAT ANGUILLULINA-DIPSACI	088	1937	
GALIUM-APARINE	DIPSACUS-SYLVESTRIS* MAC	108	1958	
GALIUM-APARINE	PLANTAGO-MAJOR	143	1959	
GALIUM-APARINE	MATRICARIA-SP.	158	1950	
GALIUM-APARINE	STELLARIA-MEDIA* STA	159	1945	
GALIUM-APARINE	VERONICA-AGRESTIS* WALTO	179	1938	
GARDEN-CROPS	HETERODERA-MARIONI	112	1946	
GARDEN-FLOWERS	VEGETABLES WEEDS RESER	102	1957	
GASKIN. WEED-HOSTS	MELOIDOGYNE-INCIGNITA	055	1958	
GATEVA. PENTON. RICE	RICE-FIELD-WEEDS EL	056	1971	
GERANIUM-CAROLINIANUM	GNAPHALIUM-SP.	074	1976	
GERANIUM-DISSECTUM*	LINNMAN. CLOVER-STE	107	1945	
GERANIUM-MACULATUM	LINARIA-CAN	139	1966	
GIBBS. HARRISON. RESERVOIRS*	GIBBS. HAR	057	1976	
GILL. SWARUP. MELOIDOGYNE-SPP.	VEGETABLE	152	1964	
GLECHOMA-HEDERACEA	SENECIO-NEMORENSIS	025	1967	
GLYCERIA-PULCHELLA	HYSTRIX-PATULA	128	1969	
GLYCYRRHIZA PICRIS	RUBUS SORGHUM	093	1969	
GNAPHALIUM-SP.	LAMIUM-AMPLEXICAUL	074	1976	
GNAPHALIUM-ULIGINOSUM	MALVA-NEGLECTA MED	169	1960	
GODFREY. HOST	ROOT-KNOT-NEMATODE HETEROD	058	1935	
GOFFART. CHENOPODIUM	GLAUCUM LAPPULA-SP.	060	1951	
GOFFART. HETERODERA	PSAMMA-ARENARIA AGRO	061	1949	
GOFFART. STELLARIA-MEDIA	SUGAR-BEET-EELW	059	1954	
GOLDEN-NEMATODE	POTATO HETERODERA-MARION	003	1944	
GOLDEN. HETERODERA	MOTHI	114	1973	
GOLDEN. SHAFER. HETERODERA	SCHACHTII SUG	062	1958	
GOMPHOCARPUS-PHYSOCARPUS	GRAPHALIUM-LUTE	058	1935	
GOODEY. ANGUILLULINA-DIPSACI	HETERODERA-	065	1936	
GOODEY. POTATO-TUBER-NEMATODE	DITYLENCHU	063	1951	
GOODEY. STEM-EELWORM	ANGUILLULINA-DIPSAC	064	1947	
GOWEN. ROOT-KNOT-NEMATODES	PEACHEY. TROP	014	1959	
GRAHAM. STING-NEMATODE	CROPS	076	1953	
GRAHAM. STING-NEMATODE	BELONOLAIMUS-GRAC	077	1953	
GRAHAM. TOBACCO	ROOT-KNOT DIGITARIA-	028	1944	
GRAHAM. TOBACCO	PRATYLENCHUS-LEIOCEPHALU	066	1951	
GRAMINEAE	ANGUILLULINA-RADICICOLA	AGROPY	175	1948
GRANGEA-MADRASPRATENSIS	JU	134	1970	
GRAPHALIUM-LUTEO-ALBUM	HYDRO	058	1935	

GRASS-HOST CITRUS-NEMATODE	161	1966
GRASS-HOSTS SOUTHERN-	128	1969
GRASSES LEGUMES WEEDS* VALLEAU, JOHN	173	1946
GRASSES ECHINOCHLOA-COLONUM SORGHUM-HA	016	1973
GRASSES BROMUS-STERILIS HORDEUM-SP.	089	1934
GRASSES CEREALS BROMUS-INERMIS BARLEY	155	1967
GRASSES CLOVERS BRASSICA	166	1969
GRASSES HOSTS CEREAL-ROOT-EELWORM	071	1958
GRUJICIC, HOST HETERODERA-SCHACHTII* GR	067	1972
GYNAMDROPSIS-PENTAPHYLLA CLEOME-VISCOS	133	1960
HAMBLIN, WEED HOST HETERODERA-GLYCINES	139	1966
HARRISON, RESERVOIRS* GIBBS, HARRISON,	057	1976
HARRISON, WEED-HOSTS VIOLA-ARVENSIS	034	1973
HASTINGS, BOSHER, HETERODERA HOST VICIA-	068	1952
HEATHCOTE, WEEDS* HEATHCOTE, WEEDS* HE	069	1970
HELIANTHUS-ANNUUS HORDEUM-JUBATUM KOELER	036	1937
HELIANTHUS-MAXIMILIANI PLANTAGO-MAJOR	082	1956
HELIANTHUS-SP. PHASEOLUS-LIMENSIS PHL	111	1961
HELICOTYLENCHUS-MANNUS IPOMOEAE-HEDERACEA	172	1970
HENBANE STEM-EELWORMS DITYLENCHUS-DIPSAC	024	1956
HENDERSON, HOST POTATO-ROOT-NEMATODE	070	1951
HERBS HETERODERA-MARIONI ATR	109	1941
HESLING, GRASSES HOSTS CEREAL-ROOT-EELWO	071	1958
HETERODERA WEEDS-AS-RE	053	1951
HETERODERA HOST VICIA-SP.	068	1952
HETERODERA PSAMMA-ARENARIA AGROSTIS-STOL	061	1949
HETERODERA-AVENAE CEREALS AVENA-FATUA*	176	1967
HETERODERA-CAROTAE DAUCUS-SPP.	181	1954
HETERODERA-CRUCIFERAE HETERODERA-TRIFOLI	181	1954
HETERODERA-GLYCINES SOYBEA	139	1966
HETERODERA-GOTTINGIANA LATHYRUS LENS PIS	181	1954
HETERODERA-GRAMINOPHILA GRASSES ECHINO	016	1973
HETERODERA-HUMULI HUMULUS CANNABIS URTIC	181	1954
HETERODERA-MAJOR* LAUGHLAND, OAT-NEMATO	100	1947
HETERODERA-MAJOR* WINSLOW, HOST-PLANTS	181	1954
HETERODERA-MARIONI HET	003	1944
HETERODERA-MARIONI* HETERODERA-MARIONI*	004	1946
HETERODERA-MARIONI* ROOT-KNOT-NEMATODE	005	1946
HETERODERA-MARIONI RUMEX-CR	012	1945
HETERODERA-MARIONI* BRATLEY, WEEDS ROOT	021	1946
HETERODERA-MARIONI* CLAYTON, SHAW, SMIT	028	1944
HETERODERA-MARIONI* COLLINS, TOBACCO-EE	032	1938
HETERODERA-MARIONI PINEAPPLE ACA	058	1935
HETERODERA-MARIONI* LI, SHAO, HOST-PLAN	101	1947
HETERODERA-MARIONI PRATYLEN	103	1939
HETERODERA-MARIONI EMILIA-S	104	1941
HETERODERA-MARIONI* LINFORD, PINEAPPLE	105	1952
HETERODERA-MARIONI ATROPABEL	109	1941
HETERODERA-MARIONI A	112	1946
HETERODERA-MARIONI ARGYREIA-SPECIOSA	115	1943
HETERODERA-MARIONI WEEDS* MORRIS, AFA	117	1945
HETERODERA-MARIONI WEED-ERADI	126	1946
HETERODERA-MARIONI ANGUI	127	1936
HETERODERA-MARIONI GALINSOGA-PARVIFLORA*	136	1936
HETERODERA-MARIONI ECHINOCHLO	160	1934
HETERODERA-MARIONI* TULAGANOV, CROPS WE	171	1954

HETERODERA-MARIONI ROOT-KNOT*	WALKER, C	178	1927
HETERODERA-MARIONI WEEDS*	WILSON, ROOT-	180	1937
HETERODERA-MARIONI WEEDS*	YOUNG, TOMATO	183	1946
HETERODERA-MOTHI	CYPE	114	1973
HETERODERA-PUNCTATA AGROSTIS-STOLONIFERA		080	1966
HETERODERA-ROSTOCHIENSIS		015	1945
HETERODERA-ROSTOCHIENSIS	POLY	037	1947
HETERODERA-ROSTOCHIENSIS*	ELLENBY, SOLA	047	1954
HETERODERA-ROSTOCHIENSIS*	PRUMMEL, SOLA	130	1958
HETERODERA-ROSTOCHIENSIS SOLANUM-SPP.		181	1954
HETERODERA-SCHACHTII	AMARANTH	002	1968
HETERODERA-SCHACHTII POLYGONUM-SP.*	GOL	003	1944
HETERODERA-SCHACHTII*	CHENOPODIUM-HYBRI	007	1952
HETERODERA-SCHACHTII HETERODERA-MARIONI		012	1945
HETERODERA-SCHACHTII	RUMEX-SPP.	054	1955
HETERODERA-SCHACHTII*	GOFFART, STELLARI	059	1954
HETERODERA-SCHACHTII SUGAR-BEET-NEMATODE		062	1958
HETERODERA-SCHACHTII	HORDEUM-M	065	1936
HETERODERA-SCHACHTII*	GRUJICIC, HOST HE	067	1972
HETERODERA-SCHACHTII ATRIPLEX-PATULA		091	1945
HETERODERA-SCHACHTII*	JONES, PETHERBRID	092	1947
HETERODERA-SCHACHTII WEED BETA BRASSICA		118	1957
HETERODERA-SCHACHTII ARABIS-ARENOSA		124	1955
HETERODERA-SCHACHTII AVENA-FATUA*	PUTNA	132	1934
HETERODERA-SCHACHTII*	RASKI, ALLEN, SUG	135	1948
HETERODERA-SCHACHTII	CHENOPODIUM-ALB	177	1967
HETERODERA-SCHACHTII	CRUCIFERAE AMAR	181	1954
HETERODERA-TRIFOLII	LEGUMINOSAE HETE	181	1954
HETEROTHECA-SUBAXILLARIS SOLIDAGO-GIGANT		066	1951
HIBISCUS-ESCULENTUS INDIGOFERA-HIRSUTA		046	1974
HIBISCUS-TRIONUM PASTINACA-SATIVA		044	1964
HIBISCUS-TRIONUM	IPOMOEAE-HEDERACE	055	1958
HIERACIUM-AURANTIACUM	HIERACIUM-PR	170	1962
HIERACIUM-GRONOVII ANGUILLULINA-DIPSACI		157	1949
HIERACIUM-PRATENSE	HYPERICUM-PUNCTA	169	1960
HIERACIUM-PRATENSE HYPERICUM-PUNCTATUM L		170	1962
HIERACIUM-SP. MATRICARIA-SP. POA-ANNUA P		034	1973
HIRSHMANIELLA-ORYZAE ECHINOCHLOA-CRUSGA		110	1974
HODSON, NARCISSUS*	HODSON, NARCISSUS*	072	1946
HOFF, XIPHINEMA-DIVERSICAUDATUM CUCUMBER		041	1965
HOGGER, BIRD, WEED HOSTS COTTON SOYBEAN		074	1976
HOGGER, BIRD, WEEDS COVERCROPS HOSTS SOY		075	1974
HOGGER, NUTSEDGES HOSTS CYPERUS-ESCULENT		019	1973
HOGGER, WEEDS CROPS HOPLOLAIMUS-COLUMBUS		073	1976
HOLDAMAN, GRAHAM, STING-NEMATODE CROPS		076	1953
HOLDAMAN, GRAHAM, STING-NEMATODE BELONOL		077	1953
HOLLIS, RICE WEEDS CRICONEMOIDES-ONOENSI		078	1972
HOLLIS, WEEDS RICE ECHINOCHLOA-COLONUM C		079	1972
HOPLOLAIMUS-COLUMBUS CYPERUS-ROTUNDUS		019	1973
HOPLOLAIMUS-COLUMBUS CROTALARIA-SPECTABI		048	1974
HOPLOLAIMUS-COLUMBUS		073	1976
HOPLOLAIMUS-COLUMBUS PRATYLENCHUS-BRACHY		074	1976
HOPLOLAIMUS-COLUMBUS	LAMIUM-AMPLEXICA	075	1974
HOPLOLAIMUS-GALEATUS TRICHODORUS-CHRISTI		138	1964
HORDEUM-JUBATUM KOELERIA-CRISTATA		036	1937
HORDEUM-JUBATUM HYPERICUM-PUNCTATUM		039	1967

HORDEUM-MURINUM BRÖMUS-MADRITENSIS CEREAL	065	1936
HORDEUM-SP. PHALARIS-CANAR	089	1934
HORNE. THAMES. HETERODERA-PUNCTATA AGROS	080	1966
HOST ROOT-KNOT-NEMATOD	168	1961
HOST BELONOLAIMUS-LONGICAUDATUS	138	1964
HOST HETERODERA-SCHACHTII* GRUJICIC. HO	067	1972
HOST HETERODERA-GLYCINES S	139	1966
HOST MELOIDOGYNE-HAPLA ALTHAEA-ROSEA	123	1966
HOST POTATO-ROOT-NEMATODE	070	1951
HOST POTATO-ROOT-EELWORM HETE	130	1958
HOST ROOT-KNOT-NEMATODE HETERODERA-MARIO	058	1935
HOST ROOT-KNOT-NEMATODE TOBACCO	147	1955
HOST SORGHUM-HALEPENSE TYLENCHORH	018	1956
HOST VICIA-SP. TRIFOLIUM	068	1952
HOST WEEDS CORN PRATYLENCHUS-ZEAE PRAT	111	1961
HOST* CAVENESS. HOST* CAVENESS. HOST*	026	1967
HOST-PLANTS HETERODERA-MARIONI* LI. SHA	101	1947
HOST-PLANTS ROOT-EELWORMS HETERODERA-SCH	181	1954
HOST-RANGE COLUMBIA-LANCE-NEMATODE	048	1974
HOST-RANGE DITYLENCHUS-DIPSACI HYACI	151	1957
HOST-RANGE NORTHERN-ROOT-KNOT-NEMATODE	049	1964
HOST-RANGE RICE-ROOT-NEMATODE	110	1974
HOST-RANGE ROOT-LESION-NEMATODES	084	1953
HOST-RANGE STEM-NEMATODE	044	1964
HOST-RANGE TUBER-ROT-EELWORM	042	1962
HOST-RANGE* SALENTINY. DITYLENCHUS-DIPS	144	1957
HOST-RECORDS ROOT-KNOT-NEMATODE	120	1974
HOST-STATUS XIPHINEMA-DIVERSICAUDATUM PO	167	1970
HOSTS RICE-ROOT-KNOT-NEM	134	1970
HOSTS BANANAS* PEREZ. WEEDS HOSTS BANAN	125	1974
HOSTS BURROWING-NEMATODE RADOPHOLUS-SIMI	022	1955
HOSTS CEREAL-ROOT-EELWORM	071	1958
HOSTS COTTON SOYBEAN CYPERUS-SPP.	074	1976
HOSTS CUCUMIS-SATIVUS XIPHENEMA	140	1970
HOSTS CYPERUS-ESCULENTUS HOPL	019	1973
HOSTS LONGIDORUS-ELONGATUS RASPB	166	1969
HOSTS SOYBEAN COTTON MELOIDOGYNE	075	1974
HUMULUS CANNABIS URTICA	181	1954
HURST. POTATO-ROOT-NEMATODE DITYLENCHUS-	081	1947
HYACINTHUS-ORIENTALIS MEDICAGO-SATIVA NA	151	1957
HYDROCOTYLE-ASIATICA IPOMOEAE-PES-CAPRAE	058	1935
HYOSCYAMUS-NIGER* BROWN. HENBANE STEM-E	024	1956
HYPERICUM-PUNCTATUM LAMIUM-AMPLEX	039	1967
HYPERICUM-PUNCTATUM LACTUCA-SCARIOLA LAM	169	1960
HYPERICUM-PUNCTATUM LACTUCA-SCARIOLA	170	1962
HYPOCHAERIS-RADICATA M	045	1932
HYSTRIX-PATULA PANICUM-MILIACEU	128	1969
ICHINOHE. YUHARA. ROOT-KNOT-NEMATODE MEL	082	1956
INDIGOFERA-HIRSUTA PUERARIA-PHASEOLOIDE	046	1974
INTERRELATIONSHIPS NEMATODES WEEDS CROPS	052	1970
IPOMOEAE-HEDERACEAE IPOMOEAE-LACUNOSA IPOMO	055	1958
IPOMOEAE-HEDERACEAE STUBBY-ROOT-NEMATOD	172	1970
IPOMOEAE-LACUNOSA IPOMOEAE-PURPUREA	055	1958
IPOMOEAE-PES-CAPRAE I	058	1935
IPOMOEAE-PURPUREA LACTUCA-CANADEN	055	1958
IPOMOEAE-TUBERCULATA IPOMOEAE-TURPETHUM KN	058	1935

IPOMOEA-TURPETHUM KNIPHOFIA-UVARIA	058	1935
IRIS POTATO BULBOUS-IRIS MENTHA-ARVENS	063	1951
ISRAEL. BISWAS. WEED CROP-PLANTS HOSTS	134	1970
IVA-SANTHIFOLIA LOTUS-AMERICANUS MAL	049	1964
IVANOVA. WEEDS DITYLENCHUS-DESTRUCTOR SO	083	1973
JENSEN. HOST-RANGE ROOT-LESION-NEMATODES	084	1953
JOHNS. CARTER. HOST WEEDS CORN PRATYLENC	111	1961
JOHNSON. ANGUILLULINA-DIPSACI WEEDS STEL	085	1936
JOHNSON. ANGUILLULINA-DIPSACI RHUBARB ST	086	1939
JOHNSON. STEM BULB-ELLWORM ANGUILLULINA-	087	1940
JOHNSON. THOMPSON. STEM-EELWORM FIELD-BE	088	1937
JOHNSON. TOBACCO PRATYLENCHUS-PRATENSIS	173	1946
JOHNSTON. GRASSES BROMUS-STERILIS HORDEU	089	1934
JOHNSTONE. RAYNOLDS. ROOT-KNOT WEEDS* J	090	1954
JONES. BEET-EELWORM HETERODERA-SCHACHTII	091	1945
JONES. PETHERBRIDGE. BEET-EELWORM WEEDS	092	1947
JUSSIEUA-REPENS PASPALUM-SANGUINOLA PHYL	134	1970
JUTE MELOIDOGYNE-JAVANICA	145	1960
KALE KOHLRABI SINAPIS-ARVENSIS THLASPI-A	177	1967
KASIMOVA. WEEDS VEGETABLE AMARANTHUS ATR	093	1969
KAVANAGH. VEGETABLES ROOT-CROPS POTATUES	094	1974
KEMPER. MELOIDOGYNE-SP. CARROTS GALINSOG	095	1958
KEMPER. MELOIDOGYNE-SP. ATRIPLEX-SP. MAT	096	1959
KHURRAMOV. WEEDS SUGARCANE* KHURRAMOV.	097	1974
KINCAID. CHRISTIE. THAMES. TOBACCO XANTH	164	1958
KINCAID. TOBACCO PRATYLENCHUS-LEIOCEPHAL	098	1952
KNIPHOFIA-UVARIA PAEDERIA-FOETIDA P	058	1935
KOCHIA-PROSTRATA PAPAVER-RHOEAS PLANTAGO	036	1937
KOCHIA-SCOPARIA LEPIDIUM-DENSIFLORUM MEL	123	1966
KOCHIA-SCOPARIA CHENOPODIUM-ALBUM OP	150	1956
KOCHIA-SP. ROOT-KNOT-NEMATODES* SCHUSTE	149	1955
KOELERIA-CRISTATA KOCHIA-PROSTRA	036	1937
KOHLRABI SINAPIS-ARVENSIS THLASPI-ARVENS	177	1967
LABIATAE PHYTOLACCACEAE POLYGONACEAE SCH	181	1954
LACTUCA-CANADENSIS LACTUCA-PULCHELLA LAC	055	1958
LACTUCA-PULCHELLA LACTUCA-SCARIOLA	055	1958
LACTUCA-SCARIOLA LEONURUS-CARDIACA	055	1958
LACTUCA-SCARIOLA LAMIAM-AMPLEXICAULE	169	1960
LACTUCA-SCARIOLA LEONURUS-CARDIACA L	170	1962
LACTURA-CANADENSIS LEPIDIUM-VIRGINICUM	029	1934
LAMIAM-ALBUM LAMIAM-PURPUREUM PLANTAGO-M	025	1967
LAMIAM-AMPLEXICACILE LEONURUS-CARDIACA M	039	1967
LAMIAM-AMPLEXICAULE* HOGGER. WEEDS CROP	073	1976
LAMIAM-AMPLEXICAULE LEPIDIUM-VIRGINICUM	074	1976
LAMIAM-AMPLEXICAULE* HOGGER. BIRD. WEED	075	1974
LAMIAM-AMPLEXICAULE MENTHA-ARVENSIS	166	1969
LAMIAM-AMPLEXICAULE LEPIDIUM-CAMPESTR	169	1960
LAMIAM-PURPUREUM RANUNCULUS-	013	1959
LAMIAM-PURPUREUM PLANTAGO-MAJOR	025	1967
LANGDON. GRASS-HOST CITRUS-NEMATODE	161	1966
LAPPULA-SP. RUMEX-CRISPUS SISYMBRIU	060	1951
LARSEN. WEED-HOSTS* LARSEN. WEED-HOSTS*	099	1948
LATHYRUS LENS PISUM VICIA HET	181	1954
LATHYRUS-OCHRUS LITCHI-CHINENSIS PA	115	1943
LAUGHLAND. OAT-NEMATODE CEREAL-ROOT-EELW	100	1947
LEAF-EELWORM WEEDS WILD-PLANTS	025	1967

LEGUMES WEEDS* VALLEAU. JOHNSON. TOBACC	173	1946
LEGUMINOSAE HETERODERA-ROSTOCHIENSIS SOL	181	1954
LENS PISUM VICIA HETERODERA-M	181	1954
LEONURUS-CARDIACA MALVA-NEGLECTA M	039	1967
LEONURUS-CARDIACA LINARIA-VULGARIS MALVA	055	1958
LEONURUS-CARDIACA LYCHNIS-ALBA MEDICAGO-	170	1962
LEPIDIUM-CAMPESTRE POTENTILLA-NORVEGICA	169	1960
LEPIDIUM-DENSIFLORUM MELILOTUS-ALBA	123	1966
LEPIDIUM-DRAHA MELANDRIUM-NOCTUIFLORUM P	143	1959
LEPIDIUM-SATIVUM POLYGONUM-PERSICARIA RU	091	1945
LEPIDIUM-VIRGINICUM LINARIA-CANADENSIS L	029	1934
LEPIDIUM-VIRGINICUM LINARIA-CANADENSIS	074	1976
LESION-NEMATODE PRATYLENCHUS-ZEAE DIGITA	172	1970
LI. SHAO. HOST-PLANTS HETERODERA-MARIONI	101	1947
LINARIA-CANADENSIS LINARIA-VULGARIS	029	1934
LINARIA-CANADENSIS PHYSALIS-SUBGLABRATA	074	1976
LINARIA-CANADENSIS PHYTOLACCA-AMERICANA	139	1966
LINARIA-VULGARIS MOLLUGO-VERTICILLAT	029	1934
LINARIA-VULGARIS MALVA-NEGLECTA	055	1958
LINARIA-VULGARIS PLANTAGO-MAJOR SISYRINC	070	1951
LINDHARDT. DITYLENCHUS-DIPSACI GARDEN-FL	102	1957
LINFORD. APHELENCHUS-AVENAE HETERODERA-M	103	1939
LINFORD. PINEAPPLE HETERODERA-MARIONI*	105	1952
LINFORD. ROOT-KNOT-NEMATODE HETERODERA-M	104	1941
LINFORD. YAP. RENIFORM-NEMATODE ROTYLENC	106	1940
LINNMAN. CLOVER-STEM-EELWORM AGROSTEMMA-	107	1945
LITCHI-CHINENSIS PANICUM-COLONUM RIDOLFI	115	1943
LOLIUM-ITALICUM LOLIUM-PERENNE	071	1958
LOLIUM-MULTIFLORUM X	155	1967
LOLIUM-PERENNE PHLEUM-PRATENSE	071	1958
LONGIDORUS-ELONGATUS	119	1970
LONGIDORUS-ELONGATUS RASPBERRY T	166	1969
LONGIDORUS-ELONGATUS RED-CURRENT	174	1965
LOTUS-AMERICANUS MALVA-MOSCHATA MENT	049	1964
LUCERNE TYLENCHUS-DIPSACI TAR	045	1932
LYCHNIS-ALBA MEDICAGO-LUPULINA	170	1962
LYCOPERSICUM-SPP. HETERODERA-CAROTAE DAU	181	1954
MACLOGAN. CEREAL DITYLENCHUS-DIPSACI STE	108	1958
MACMILLAN. DRUG-PLANTS HERBS HETERODERA-	109	1941
MAI. POTATO HETERODERA-ROSTOCHIENSIS	037	1947
MAIZE PRATYLENCHUS-BRACHYURUS	046	1974
MALVA-MOSCHATA MENTHA-CARDIACA MENTHA-PI	049	1964
MALVA-NEGLECTA MEDICAGO-LUPULINA N	039	1967
MALVA-NEGLECTA MEDICAGO-LUPULI	055	1958
MALVA-NEGLECTA MEDICAGO-LUPULINA ON	169	1960
MARIGOLDS WEEDS CROPS	113	1969
MARTIN. SUGARCANE HOST SORGHUM-HALEPENSE	018	1956
MATHUR. PRASAD. HOST-RANGE RICE-ROOT-NEM	110	1974
MATRICARIA-INODORA* IVANOVA. WEEDS DITY	083	1973
MATRICARIA-INODORA GALINSOGA-PARVIFL	096	1959
MATRICARIA-MATRICARIOIDES TUSSILAGO-FARFA	167	1970
MATRICARIA-SP. POA-ANNUA POLYGONUM-AVICU	034	1973
MATRICARIA-SP. RUMEX-CRISPUS STELLARIA-M	158	1950
MCHRIDE. JOHNS. CARTER. HOST WEEDS CORN	111	1961
MCELROY. HOST-RANGE NORTHERN-ROOT-KNOT-N	049	1964
MEDICAGO-DENTICULATA MEDICAGO-MINIMA BRO	045	1932

MEDICAGO-LUPULINA NEPETA-CATARIA OXALIS-	039	1967
MEDICAGO-LUPULINA MUHLENBERGIA-SCHREBERI	055	1958
MEDICAGO-LUPULINA ONOPORDUM-ACANTHI	169	1960
MEDICAGO-LUPULINA NEPETA-CATA	170	1962
MEDICAGO-MINIMA BROMUS-UNIOLOIDES* EDWA	045	1932
MEDICAGO-SATIVA NARCISSUS-SP. PI	151	1957
MELANDRIUM-NOCTUIFLORUM PAPAVER-RHOEAS	143	1959
MELILOTUS-ALBA PLANTAGO-RUGELII	123	1966
MELOIDOGYNE VEGETABLES MELONS WEEDS* SA	141	1971
MELOIDOGYNE-ARENARIA M	152	1964
MELOIDOGYNE-ARENARIA-THAMESI ERAGROSTIS-	152	1964
MELOIDOGYNE-EXIGUA* BARNES. GOWEN. ROOT	014	1959
MELOIDOGYNE-GRAMINICOLA ANDR	134	1970
MELOIDOGYNE-HAPLA POTATO SUGAR-BEET CARR	049	1964
MELOIDOGYNE-HAPLA ARCTIUM-MINUS HEL	082	1956
MELOIDOGYNE-HAPLA ALTHAEA-ROSEA	123	1966
MELOIDOGYNE-HAPLA* SAMAD. ROOT-KNOT JUT	145	1960
MELOIDOGYNE-HAPLA CHENOPODIUM-GLAU	148	1960
MELOIDOGYNE-HAPLA ALLIARIA	170	1962
MELOIDOGYNE-INCIGNITA MELOIDOGYNE-JAVANI	014	1959
MELOIDOGYNE-INCIGNITA* BIRD. HOGGER. NU	019	1973
MELOIDOGYNE-INCIGNITA AMARANTH	039	1967
MELOIDOGYNE-INCIGNITA	055	1958
MELOIDOGYNE-INCIGNITA PRATYLENCHUS-BRACH	073	1976
MELOIDOGYNE-INCIGNITA	074	1976
MELOIDOGYNE-INCIGNITA STELLARIA-MEDIA SO	075	1974
MELOIDOGYNE-INCIGNITA AMARANTHUS-GRACILI	120	1974
MELOIDOGYNE-INCIGNITA AGROPYRO	128	1969
MELOIDOGYNE-INCIGNITA	131	1958
MELOIDOGYNE-INCIGNITA RUMEX-HYMENOSEPALU	137	1951
MELOIDOGYNE-INCIGNITA* RHOADES. NUTSEDG	138	1964
MELOIDOGYNE-INCIGNITA	152	1964
MELOIDOGYNE-INCIGNITA* THOMASON. VAN-GU	168	1961
MELOIDOGYNE-JAVANICA ME	014	1959
MELOIDOGYNE-JAVANICA ACHYRANTHUS-SPERA P	131	1958
MELOIDOGYNE-JAVANICA* RANGASEAMI. VASAN	133	1960
MELOIDOGYNE-JAVANICA CE	145	1960
MELOIDOGYNE-JAVANICA MELOIDOGYNE-ARENARI	152	1964
MELOIDOGYNE-JAVANICA	168	1961
MELOIDOGYNE-SP. CARROTS GALINSOGA-PARVIF	095	1958
MELOIDOGYNE-SP. ATRIPLEX-SP. MATRICARIA-	096	1959
MELOIDOGYNE-SPP.* COLBRAN. ROOT-KNOT-NE	031	1956
MELOIDOGYNE-SPP.* SASSER. NUSBAUM. HOST	147	1955
MELOIDOGYNE-SPP. VEGETABLE-CROPS R	152	1964
MELONS WEEDS* SAKCHIEV. MELOIDOGYNE VEG	141	1971
MELONS WEEDS* SAKCHIEV. ROOT-KNOT-NEMAT	142	1972
MENTHA-ARVENSIS D	008	1968
MENTHA-ARVENSIS SONCHUS-ARVENSIS* GOODE	063	1951
MENTHA-ARVENSIS* HURST. POTATO-ROOT-NEM	081	1947
MENTHA-ARVENSIS* TAYLOR. THOMAS. XIPHIN	165	1968
MENTHA-ARVENSIS STELLARIA-MEDIA T	166	1969
MENTHA-ARVENSIS VERONICA-SP.* THOMAS. H	167	1970
MENTHA-CARDIACA MENTHA-PIPERITA	049	1964
MENTHA-PIPERITA SISYMBRIUM-	049	1964
MERCURIALIS-ANNUA SINAPIS-ARVENSIS THLAS	143	1959
MIKANIA-BATATIFOLIA* CHITWOOD. BIRCHFIE	027	1957

MILLER. AHERNS. MARIGOLDS WEEDS CROPS	113	1969
MILLER. GARDEN-CROPS HETERODERA-MARIONI	112	1946
MILLO CYNODON-DACTYLON TRIBULUS-T	011	1961
MINTON. TUCKER. GOLDEN. HETERODERA-MOTHI	114	1973
MINTZ. HETERODERA-MARIONI ARGYREIA-SPECI	115	1943
MISHKINO. WEEDS* MISHKINO. WEEDS* MISH	116	
MOLLUGO-VERTICILLATA OXALIS-STRICTA PHLE	029	1934
MOORE. HOST-RANGE TUBER-ROT-EELWORM	042	1962
MORRIS. AFANASIEV. SUGAR-BEET-DISEASES H	117	1945
MUHLENBERGIA-SCHREBERI OXALIS-STRICTA	055	1958
MULHOLLAND. TYLENCHUS-COFFEAE	051	1941
MULVEY. SUGAR-BEET-NEMATODE HETERODERA-S	118	1957
MURANT. WILD-PLANTS LONGIDORUS-ELONGATUS	119	1970
NACOBBUS-BATATIFORMIS KOCHIA-SCOPARIA CH	150	1956
NAGVI. ALAM. HOST-RECORDS ROOT-KNOT-NEMA	120	1974
NARCISSUS DITYLENCHUS-DIPSACI	158	1950
NARCISSUS ANGUILLILINA-DIPSACI AGROPYRON	029	1934
NARCISSUS DITYLENCHUS-DIPSACI APHELENCHO	006	1952
NARCISSUS* HODSON. NARCISSUS* HODSON.	072	1946
NARCISSUS-SP. PISUM-SATIVUM SOLA	151	1957
NAUDE. ROOT-KNOT TOBACCO* NAUDE. ROOT-K	121	1939
NEMATODES WEEDS WHEAT* ALALIKIRIA. NEMA	001	1969
NEMATODES WEEDS CROPS* FRANKLIN. INTERR	052	1970
NEPETA-CATARIA OXALIS-EUROPAEA	039	1967
NEPETA-CATARIA PLANTAGO-LANCEOLATA PLANT	170	1962
NOLTE. DITYLENCHUS-DIPSACI STELLARIA-MED	122	1957
NORTHERN-ROOT-KNOT-NEMATODE MELOIDOGYN	049	1964
NORTHERN-ROOT-KNOT-NEMATODE MELOIDOGYNE-	170	1962
NORTON. HOST MELOIDOGYNE-HAPLA ALTHAEA-R	123	1966
NUSBAUM. HOST ROOT-KNOT-NEMATODE TOBACCO	147	1955
NUTSEDGE HOST BELONOLAIMUS-LONGICAUDATUS	138	1964
NUTSEDGES HOSTS CYPERUS-ESCULENTUS	019	1973
OAT ANGUILLULINA-DIPSACI* JOHNSON. THOM	088	1937
OAT ANGUILLULINA-DIPSACI BRASSICA-SINAPI	179	1938
OAT BEAN* JOHNSON. ANGUILLULINA-DIPSACI	085	1936
OAT TEASEL PHLOX NARCISSUS OI	158	1950
OAT* JOHNSON. STEM BULB-ELLWORM ANGUILL	087	1940
OAT-NEMATODE CEREAL-ROOT-EELWORM	100	1947
OATS HETERODERA-SCHACHTII AVENA-FATUA*	132	1934
OATS ONIONS BEANS PARSNIPS RHUBARD	064	1947
OATS RYE WHEAT DIPSACUS-FULLONUM CO	035	1952
OATS TULIP-ROOT ARENARIA-SERPYLLIFOLIA	159	1945
ONION SOYBEAN SNAPBEAN PEA	044	1964
ONION-RACE* NOLTE. DITYLENCHUS-DIPSACI	122	1957
ONIONS BEANS PARSNIPS RHUBARD WEED	064	1947
ONOPORDUM-ACANTHIUM PLANTAGO-MAJOR POLYG	169	1960
ONSEM. DITYLENCHUS-DIPSACI ANGUILLULINA-	020	1947
OOSTENBRINK. HETERODERA-SCHACHTII ARABIS	124	1955
OPUNTIA-FRAGILIS CORYPHANTHA-VIVIPARA*	150	1956
OPUNTIA-TORTISPINA OPUNTIA-FRAGILIS CORY	150	1956
OXALIS-EUROPAEA POLYGONUM-PER	039	1967
OXALIS-STRICTA PHLEUM-PRATENSE P	029	1934
OXALIS-STRICTA PANICUM-CAPILLARE PAS	055	1958
PAEDERIA-FOETIDA PASPALUM-LARRANAGAI PEN	058	1935
PANAGROLAIMUS-ZEAE* GATEVA. PENTON. RIC	056	1971
PANICUM-BARBINODE PORTULACA-OLERACEA	103	1939

PANICUM-CAPILLARE PASTINACA-SATIVA PHYSA	055	1958
PANICUM-COLONUM RIDOLFIA-SEGETAM* MINTZ	115	1943
PANICUM-MILIACEUM PHLEUM-ALPINUM PHLEUM-	128	1969
PAPAVER-RHOEAS PLANTAGO-SPP. POA-SPP.	036	1937
PAPAVER-RHOEAS RANUNCULUS-ARVENSIS	143	1959
PARAPHELENCHUS-PSEUDOPARIETINUS PRAT	093	1969
PARSNIPS RHUBARD WEEDS ANAGALLIS-ARVENSI	064	1947
PASPALUM-DILATATUM DACTYLOCTENIUM-AEGYPT	077	1953
PASPALUM-LARRANAGAI PENNISETUM-PURPUREUM	058	1935
PASPALUM-SANGUINOLA PHYLLANTHUS-URINARIA	134	1970
PASSIFLORA-INCARNATA PORTULACA-OLERACEA	178	1927
PASTINACA-SATIVA POLYGONUM-PE	044	1964
PASTINACA-SATIVA PHYSALIS-HETEROPHYLLA	055	1958
PEA BRASSICA-NIGRA HIBISCUS	044	1964
PEACHEY, TROPICAL-CROPS MELOIDOGYNE-INC	014	1959
PENNISETUM-PURPUREUM PHYTOLACCA-ACINOS	058	1935
PENTON, RICE RICE-FIELD-WEEDS ELEUSINE A	056	1971
PEPPERMINT AMARANTHUS-GRAECIZANS A	049	1964
PEREZ, WEEDS HOSTS BANANAS* PEREZ, WEED	125	1974
PETHERBRIDGE, BEET-EELWORM WEEDS	092	1947
PHALARIS-CANARIENSIS* JOHNSTON, GRASSES	089	1934
PHASEOLUS-LIMENSIS PHLOX-DRUMMONDI SI	111	1961
PHLEUM-ALPINUM PHLEUM-PRATENSE	128	1969
PHLEUM-PRATENSE PLANTAGO-LANCELA	029	1934
PHLEUM-PRATENSE* HESLING, GRASSES HOSTS	071	1958
PHLEUM-PRATENSE POA-PALUSTRIS	128	1969
PHLOX NARCISSUS DITYLENCHUS-D	158	1950
PHLOX-DRUMMONDI SIDA-RHOMBIFOLIA TOMATO	111	1961
PHYLLANTHUS-URINARIA VANDELLIA-SP.*	134	1970
PHYSALIS-HETEROPHYLLA PHYTOLACCA-AMER	055	1958
PHYSALIS-MINIMA* PUSHKARNATH, CHOUDHARY	131	1958
PHYSALIS-SUBGLABRATA RICHARDIA-SCARBA RU	074	1976
PHYTOLACCA-ACINOSA PICRIDIDIUM-TINGITANUM	058	1935
PHYTOLACCA-AMERICANA PLANTAGO-LANCEOLATA	055	1958
PHYTOLACCA-AMERICANA PORTULACA-OLERACEA*	139	1966
PHYTOLACCACEAE POLYGONACEAE SCROPHULARIA	181	1954
PICRIDIDIUM-TINGITANUM PROSOPIS-JULIFLORA	058	1935
PICRIS RUBUS SORGHUM APHELENC	093	1969
PINCKARD, PRATYLENCHUS-SPP.* FELDMESSER	050	1956
PINEAPPLE ACANTHOSPERMUM-XANTHOIDES ANAG	058	1935
PINEAPPLE HETERODERA-MARIONI* LINFORD,	105	1952
PISUM VICIA HETERODERA-MAJOR*	181	1954
PISUM-SATIVUM SOLANUM-TUBEROSUM TRIFOLIUM	151	1957
PITMAN, EELWORM-SCAB POTATOES HETERODERA	126	1946
PLAKIDAS, ALLIGATOR-WEED HETERODERA-MARI	127	1936
PLANTAGO-LANCEOLATA PLANTAGO-RUGELLI POLY	029	1934
PLANTAGO-LANCEOLATA PLANTAGO-RUGELI P	055	1958
PLANTAGO-LANCEOLATA TARAXACUM-PLATYCARPU	082	1956
PLANTAGO-LANCEOLATA RUMEX-SP.* JENSEN,	084	1953
PLANTAGO-LANCEOLATA RUMEX-OBTUSIFOLIUS X	140	1970
PLANTAGO-LANCEOLATA PLANTAGO-MAJOR	170	1962
PLANTAGO-MAJOR STELLARIA-	025	1967
PLANTAGO-MAJOR SISYRINCHIUM-ANGUSTIFOLIUM	070	1951
PLANTAGO-MAJOR PLANTAGO-LANCEOLA	082	1956
PLANTAGO-MAJOR POLYGONUM-AVICULARE GALEO	143	1959
PLANTAGO-MAJOR POLYGONUM-PERSICARIA	169	1960

PLANTAGO-MAJOR	POLYGONUM-AVICU	170	1962
PLANTAGO-MAJOR*	POTATO-TUBER-ELLWORM ME	008	1968
PLANTAGO-RUGELI	POLYGONUM-AVICULARE P	055	1958
PLANTAGO-RUGELII	PORTULACA-OLERACEA RUME	123	1966
PLANTAGO-RUGELLI	POLYGONUM-AVICULARE	029	1934
PLANTAGO-SPP.	POA-SPP.	RANUNCULUS-S	036
PLUCHEA-SERICEA	HOST	R	168
POA-ANNUA	STELLARIA-MEDIA	MATRICARIA	167
POA-ANNUA	CAPSELLA-BURSA-PASTORIS		165
POA-ANNUA	POLYGONUM-AVICULARE	POLYGONUM	034
POA-ANNUA*	HORNE. THAMES.	HETERODERA-PU	080
POA-COSTATA	POA-PRATENSIS*	DORE. ANGUIL	040
POA-PALUSTRIS*	POTTER. TOWNSHEND.	DAVID	128
POA-PRATENSIS	LOLIUM-MULTIFLORUM		155
POA-PRATENSIS*	DORE. ANGUILLULA-AGROSTI		040
POA-SPP.	RANUNCULUS-SPP.	RUMEX-ACET	036
POLYGONACEAE	PORTULACACEAE*	MULVEY. SUG	118
POLYGONACEAE	SCROPHULARIACEAE	TROP	181
POLYGONUM-AVICULARE	POLYGONUM-CONVOL		029
POLYGONUM-AVICULARE	POLYGONUM-CONVOLVUL		034
POLYGONUM-AVICULARE	POLYGONUM-COCCINEUM		055
POLYGONUM-AVICULARE	SOLANUM-NIGRUM	TARAX	096
POLYGONUM-AVICULARE	GALEOPSIS-TETRAHIT		143
POLYGONUM-AVICULARE	POLYGONUM-CONVOLVULU		170
POLYGONUM-COCCINEUM			055
POLYGONUM-CONVOLVULUS	POLYGONUM-PERSICAR		029
POLYGONUM-CONVOLVULUS	RUMEX-ACETOSELLA	S	034
POLYGONUM-CONVOLVULUS	POLYGONUM-ERECTUM		055
POLYGONUM-CONVOLVULUS	STELLARIA-MEDI		064
POLYGONUM-CONVOLVULUS		P	096
POLYGONUM-CONVOLVULUS	RAPISTRUM-PERENN		124
POLYGONUM-CONVOLVULUS	POLYGONUM-PERSICAR		143
POLYGONUM-CONVOLVULUS			170
POLYGONUM-ERECTUM		PO	055
POLYGONUM-PENNSYLVANICUM	POLYGONUM-PERSI		044
POLYGONUM-PENNSYLVANICUM	POLYGONUM-PERSIC		055
POLYGONUM-PERSICARIA	PRUNUS-SP.	RA	029
POLYGONUM-PERSICARIA	POTENTILLA-NORVEGIC		039
POLYGONUM-PERSICARIA		RUMEX	044
POLYGONUM-PERSICARIA		PORT	055
POLYGONUM-PERSICARIA	RUMEX-CRISPUS		091
POLYGONUM-PERSICARIA	SONCHUS-ARVENS		143
POLYGONUM-PERSICARIA	SOLIDAGO-SPP.	S	169
POLYGONUM-PERSICARIA	RUMEX-CRISPUS	SISYM	170
POLYGONUM-SP.*	GOLDEN-NEMATODE	POTATO H	003
POLYGONUM-SPP.	ONION-RACE*	NOLTE. DIT	122
POLYGONUM-SPP.*	CUNNINGHAM. MAI.	POTATO	037
PORTULACA-OLERACEA	SOLANUM-NIGRUM*	ALTM	002
PORTULACA-OLERACEA	RAPHANUS-RAPHANISTRUM		055
PORTULACA-OLERACEA		VIGNA-SINENSIS	103
PORTULACA-OLERACEA*	LINFORD. ROOT-KNOT-		104
PORTULACA-OLERACEA	RUMEX-ALTISSIMUS		123
PORTULACA-OLERACEA*	RIGGS. HAMBLER. WEE		139
PORTULACA-OLERACEA	RICHARDIA-SCABRA	H	178
PORTULACA-SP.	RUMEX-SP.	HETERODERA-S	135
PORTULACACEAE*	MULVEY. SUGAR-BEET-NEMAT		118

POTATO BULBOUS-IRIS MENTHA-ARVENSIS SONC	063	1951
POTATO HETERODERA-MARIONI	003	1944
POTATO HETERODERA-ROSTOCHIENSIS	037	1947
POTATO SUGAR-BEET CARROT ALFALFA	049	1964
POTATO-ROOT-EELWORM* BATES. WEED-HOST H	015	1945
POTATO-ROOT-EELWORM	047	1954
POTATO-ROOT-EELWORM HETERODER	130	1958
POTATO-ROOT-NEMATODE	070	1951
POTATO-ROOT-NEMATODE DITYLENCHUS-DESTRUC	081	1947
POTATO-TUBER-ELLWORM MENTHA-ARVENSIS	008	1968
POTATO-TUBER-NEMATODE DITYLENCHUS-DESTRU	063	1951
POTATOES COLEUS-PERVIFLORUS MELOI	131	1958
POTATOES ACHILLEA-MILLEFOLIUM	034	1973
POTATOES HETERODERA-MARIONI W	126	1946
POTATOES* KAVANAGH. VEGETABLES ROOT-CRO	094	1974
POTENTILLA-INTERMEDIA SONCHUS-ASPER* SA	148	1960
POTENTILLA-NORVEGICA P	039	1967
POTENTILLA-NORVEGICA	169	1960
POTTER. TOWNSHEND. DAVIDSON. GRASS-HOSTS	128	1969
PRASAD. HOST-RANGE RICE-ROOT-NEMATODE	110	1974
PRATYLENCHUS-BRACHYURUS	046	1974
PRATYLENCHUS-BRACHYURUS TR	073	1976
PRATYLENCHUS-BRACHYURUS T	074	1976
PRATYLENCHUS-BRACHYURUS ASTER-SP. CASTER	111	1961
PRATYLENCHUS-BRACHYURUS* TAPPAN. KINCAI	164	1958
PRATYLENCHUS-COFFEAE APPLE-TREES RUMEX-A	030	1954
PRATYLENCHUS-LEIOCEPHALUS	066	1951
PRATYLENCHUS-LEIOCEPHALUS ELEUSINE-INDIC	098	1952
PRATYLENCHUS-PENETRANS	084	1953
PRATYLENCHUS-PENETRANS TYLENCHORHYNCHUS-	113	1969
PRATYLENCHUS-PENETRANS PRATYLENCHUS-BRAC	164	1958
PRATYLENCHUS-PENETRANS STRAWBERRY S	169	1960
PRATYLENCHUS-PRATENSIS* NARCISSUS DITYL	006	1952
PRATYLENCHUS-PRATENSIS ROTYLENCHUS-MULTI	093	1969
PRATYLENCHUS-PRATENSIS ROTYLENCHUS-MULTI	103	1939
PRATYLENCHUS-PRATENSIS GRASSES LEGUME	173	1946
PRATYLENCHUS-SPP. ACHILLEA-MILLEFOLIUM A	036	1937
PRATYLENCHUS-SPP.* FELDMESSER. FEDER. P	050	1956
PRATYLENCHUS-VULNUS PRATYLENCHUS-PENETRA	084	1953
PRATYLENCHUS-ZEAE CORN MILO CYNODON-DACT	011	1961
PRATYLENCHUS-ZEAE DIGITARIA-SANGUINALIS	066	1951
PRATYLENCHUS-ZEAE PRATYLENCHUS-BRACHYU	111	1961
PRATYLENCHUS-ZEAE DIGITARIA-ISCHAEMUM	172	1970
PROKHOROV. WEEDS SOYBEAN* PROKHOROV. WE	129	1972
PROSOPIS-JULIFLORA PRUNELLA-VULGARIS RI	058	1935
PRUMMEL. SOLANUM-NIGRUM HOST POTATO-ROOT	130	1958
PRUNELLA-VULGARIS RUMEX-CRISPUS SETARIA-	039	1967
PRUNELLA-VULGARIS RICHARDSONIA-SCABRA SE	058	1935
PRUNUS-SP. RAPHANUS-RAPHANISTRUM R	029	1934
PSAMMA-ARENARIA AGROSTIS-STOLONIFERA* G	061	1949
PSIDIUM-GUAJAVA PYROSTEGI	022	1955
PUERARIA-PHASEOLOIDES SPIGELIA-ANTHELMIA	046	1974
PUSHKARNATH. CHOUDHARY. ROOT-KNOT-NEMATO	131	1958
PUTNAM. THORNE. OATS HETERODERA-SCHACHTI	132	1934
PYROSTEGIA-VENUSTA RIVINA-HUMILIS SOLANU	022	1955
RADOPHOLUS-SIMILIS CELOSIA-NITID	022	1955

RADOPHOLUS-SIMILIS CITRUS WEEDS* SUIT.	163	1954
RANGASEAMI. VASANTHARAJAN. VENKATESAN. R	133	1960
RANUNCULUS-ABORTIVUS STELLARIA-MEDIA TAR	013	1959
RANUNCULUS-ABORTIVUS RORIPPA-SYLVESTRIS	169	1960
RANUNCULUS-ARVENSIS SENECIO-VULGARIS STE	143	1959
RANUNCULUS-SPP. RUMEX-ACETOSA RUMEX-CRIS	036	1937
RAO. ISRAEL. BISWAS. WEED CROP-PLANTS HO	134	1970
RAPE BEET KALE KOHLRABI SINAPIS-ARV	177	1967
RAPHANUS-RAPHANISTRUM RUMEX-ACETOSELLA R	029	1934
RAPHANUS-RAPHANISTRUM RUMEX-ACETOSELLA	055	1958
RAPISTRUM-PERENNE RUMEX-ACETOSELLA RUMEX	124	1955
RASKI. ALLEN. SUGAR-BEET-NEMATODE ATRIPL	135	1948
RASPBERRY CHENOPODIUM-QUINOA SUGAR-BEET	174	1965
RASPBERRY POA-ANNUA CAPSELLA-BURSA-PASTO	165	1968
RASPBERRY TOMATO STRAWBERRY GRASSES CLOV	166	1969
RAYNOLDS. ROOT-KNOT WEEDS* JOHNSTONE. R	090	1954
RED-CLOVER FIELD-PEA PEPPERMINT AMARANTH	049	1964
RED-CLOVER OAT TEASEL PHLOX NARCISSUS	158	1950
RED-CLOVER* SOPER. CLOVER HIERACIUM-GRO	157	1949
RED-CURRENT WEED-SPECIES RA	174	1965
REINMUTH. HETERODERA-MARIONI GALINSOGA-P	136	1936
RENIFORM-NEMATODE ROTYLENCHUS-RENIFORMIS	106	1940
RESERVOIR-HOSTS* SUDAKOVA. WEEDS RESERV	162	1959
RESERVOIRS* GIBBS. HARRISON. RESERVOIRS	057	1976
RESERVOIRS* LINDHARDT. DITYLENCHUS-DIPS	102	1957
REYNOLDS. SLEETH. ROOT-KNOT-NEMATODE CAN	137	1951
RHOADES. NUTSEGE HOST BELONOLAIMUS-LONG	138	1964
RHUBARB STELLARIA-MEDIA* JOHNSON. ANGUI	086	1939
RHUBARD WEEDS ANAGALLIS-ARVENSIS	064	1947
RICE ECHINOCHLOA-COLONUM CYPERUS-IRIA	079	1972
RICE RICE-FIELD-WEEDS ELEUSINE ANDROPOGA	056	1971
RICE WEEDS CRICONEMOIDES-ONOENSIS	078	1972
RICE WEEDS HETERODERA-MARIONI	160	1934
RICE-FIELD-WEEDS ELEUSINE ANDROPOGAN D	056	1971
RICE-ROOT-KNOT-NEMATODE MELOIDOGYNE-GRAM	134	1970
RICE-ROOT-NEMATODE HIRSHMA	110	1974
RICHARDIA-SCABRA HETERODERA-MARIONI R	178	1927
RICHARDIA-SCARBA RUMEX-HASTATULUS S	074	1976
RICHARDSONIA-SCABRA SENECIO-HERACIFOLIA	058	1935
RIDOLFIA-SEGETAM* MINTZ. HETERODERA-MAR	115	1943
RIGGS. HAMBLIN. WEED HOST HETERODERA-GLY	139	1966
RING-NEMATODE CRICONEMOIDES-SPP.* UP	172	1970
RIVINA-HUMILIS SOLANUM-NIGRUM	022	1955
ROOT-CROPS POTATOES* KAVANAGH. VEGETABL	094	1974
ROOT-EELWORM SUGAR-BEET HETERODERA-SCHAC	054	1955
ROOT-EELWORMS HETERODERA-SCHACHTII C	181	1954
ROOT-GALL-NEMATODE WHEAT GRAMINEAE	175	1948
ROOT-KNOT DIGITARIA-SP. HETERODERA-M	028	1944
ROOT-KNOT JUTE MELOIDOGYNE-JAVANICA	145	1960
ROOT-KNOT RICE WEEDS HETERODERA-MARIONI	160	1934
ROOT-KNOT TOBACCO HETERODERA-MARIONI* B	021	1946
ROOT-KNOT TOBACCO* NAUDE. ROOT-KNOT TOB	121	1939
ROOT-KNOT WEEDS* JOHNSTONE. RAYNOLDS. R	090	1954
ROOT-KNOT* WALKER. CABBAGE ANTHEMIS-COT	178	1927
ROOT-KNOT-EELWORM HETERODERA-MARIONI WEE	180	1937
ROOT-KNOT-NEMATODE HETERODERA-MARIONI*	005	1946

ROOT-KNOT-NEMATODES PEACHEY. TROPICAL-CR	014	1959
ROOT-KNOT-NEMATODES MELOIDOGYNE-SPP.* C	031	1956
ROOT-KNOT-NEMATODE COL	033	1950
ROOT-KNOT-NEMATODE HETERODERA-MARIONI	058	1935
ROOT-KNOT-NEMATODE MELOIDOGYNE-HAPLA	082	1956
ROOT-KNOT-NEMATODE HETERODERA-MARIONI	104	1941
ROOT-KNOT-NEMATODE MELOID	120	1974
ROOT-KNOT-NEMATODES POTATOES COLE	131	1958
ROOT-KNOT-NEMATODES SUGARCANE WEEDS ACA	133	1960
ROOT-KNOT-NEMATODE CANAIGRE	137	1951
ROOT-KNOT-NEMATODES VEGETABLES MELONS WE	142	1972
ROOT-KNOT-NEMATODE TOBACCO ER	147	1955
ROOT-KNOT-NEMATODE MELOIDOGYNE-HAPLA	148	1960
ROOT-KNOT-NEMATODES* SCHUSTER. SUGAR-BE	149	1955
ROOT-KNOT-NEMATODES MELOIDOGYNE-INCOGNIT	152	1964
ROOT-KNOT-NEMATODES WEEDS* SIEFF. TOMAT	154	1959
ROOT-KNOT-NEMATODES MELOIDOGYNE-JAVANICA	168	1961
ROOT-LESION-NEMATODES	084	1953
RORIPPA-SYLVESTRIS RUMEX-CRISPUS S	169	1960
ROSS. DUTCH. THOMAS. WEED-CONTROL* YEAT	182	1976
ROTYLENCHUS-MULTICINCTUS TYL	093	1969
ROTYLENCHUS-MULTICINCTUS AMA	103	1939
ROTYLENCHUS-RENIFORMIS* LINFORD. YAP. R	106	1940
ROTYLENCHUS-SPP. TYLENCHUS-SPP.	036	1937
RUBUS SORGHUM APHELENCHUS-AVE	093	1969
RUMEX-ACETOSA RUMEX-CRISPUS	036	1937
RUMEX-ACETOSELLA RUMEX-CRISPUS RU	029	1934
RUMEX-ACETOSELLA* COLBRAN. PRATYLENCHUS	030	1954
RUMEX-ACETOSELLA SAGINA-PROCUMBENS SE	034	1973
RUMEX-ACETOSELLA RUMEX-ALTISSIMUS RUME	055	1958
RUMEX-ACETOSELLA RUMEX-PATIENTIA	124	1955
RUMEX-ALTISSIMUS RUMEX-CRISPUS RUMEX-OBT	055	1958
RUMEX-ALTISSIMUS TRIBULUS-TERREST	123	1966
RUMEX-CRISPUS RUMEX-OBTUSIFOLIUS	029	1934
RUMEX-CRISPUS SETARIA-VI	036	1937
RUMEX-CRISPUS SISYMBRIUM-SOPHIA XAN	060	1951
RUMEX-CRISPUS SISYMBRIUM-OFFICIN	091	1945
RUMEX-CRISPUS SENEIO-VULGARIS CIR	169	1960
RUMEX-CRISPUS ARCTIUM-MINUS* BAKER. HET	012	1945
RUMEX-CRISPUS RUMEX-OBTUSIFOLIUS	055	1958
RUMEX-CRISPUS SETARIA-VIRIDIS	039	1967
RUMEX-CRISPUS SAPONARIA-OFFICINALIS SOLA	044	1964
RUMEX-CRISPUS STELLARIA-MEDIA	158	1950
RUMEX-CRISPUS SISYMBRIUM-ALTISSIMUM S	170	1962
RUMEX-HASTATULUS SIDA-SPINOSA SORGH	074	1976
RUMEX-HYMENOSEPALUS* REYNOLDS. SLEETH.	137	1951
RUMEX-OBTUSIFOLIUS PLANTAGO-MAJOR* POTA	008	1968
RUMEX-OBTUSIFOLIUS SOJA-MAX TRIFOLIUM-AR	029	1934
RUMEX-OBTUSIFOLIUS SONCHUS-ASPER TUSSI	042	1962
RUMEX-OBTUSIFOLIUS SICYOS-ANGU	055	1958
RUMEX-OBTUSIFOLIUS XANTHIUM-STRUMARIUM*	140	1970
RUMEX-PATIENTIA SESBANIA-EXALTA	124	1955
RUMEX-SP. HETERODERA-SCHACHTII* RAS	135	1948
RUMEX-SP.* JENSEN. HOST-RANGE ROOT-LESI	084	1953
RUMEX-SPP. CHENOPODIUM-ALBUM BRASSICA-KA	054	1955
RUSH. TOBACCO-RINGSPOT-VIRUS HOSTS CUCUM	140	1970

RYE	WHEAT DIPSACUS-FULLONUM COLLOMI	035	1952
RYE*	BRANDE. ONSEM. DITYLENCHUS-DIPSACI	020	1947
SAGINA-PROCUMBENS	SENECIO-VULGARIS SP	034	1973
SAKCHIEV. MELOIDOGYNE VEGETABLES	MELONS	141	1971
SAKCHIEV. ROOT-KNOT-NEMATODES	VEGETABLES	142	1972
SALENTINY. DITYLENCHUS-DIPSACI	AETHUSA-C	143	1959
SALENTINY. DITYLENCHUS-DIPSACI	WEEDS HOS	144	1957
SAMAD. ROOT-KNOT JUTE	MELOIDOGYNE-JAVANI	145	1960
SAPONARIA-OFFICINALIS	SOLANUM-CAROLINENS	044	1964
SASSER. NUSBAUM. HOST	ROOT-KNOT-NEMATODE	147	1955
SASSER. STEM-NEMATODE	DITYLENCHUS-DIPSAC	013	1959
SASSER. TOBACCO CROP*	SASSER. TOBACCO C	146	1950
SAYRE. VEGETABLE	ROOT-KNOT-NEMATODE MELO	148	1960
SCHUSTER. SUGAR-BEET	KOCHIA-SP. ROOT-KNO	149	1955
SCHUSTER. THORNE. WEEDS	SUGAR-BEET-ROOT-	150	1956
SCROPHULARIACEAE	TROPAEOLACEAE HET	181	1954
SEINHORST. STEM-EELWORMS	HOSR-RANGE DITY	151	1957
SELMAN. WEBSTER. WEED-INFESTATIONS		172	1970
SENECIO-HERACIFOLIA	SIDA-MEYENIANA SIL	058	1935
SENECIO-NEMORENSIS	STACHYS-ARTE	025	1967
SENECIO-VULGARIS	SOLANUM-NIGRUM	025	1967
SENECIO-VULGARIS	SPERGULA-ARVENSIS STELL	034	1973
SENECIO-VULGARIS	STELLARIA-MEDIA* SALEN	143	1959
SENECIO-VULGARIS	MENTHA-ARVENSIS* TAYLO	165	1968
SENECIO-VULGARIS	CIRSIIUM-ARVENSE DAUCUS-	169	1960
SESBANIA-EXALTATA*	OOSTENBRINK. HETEROD	124	1955
SETARIA-VIRIDIS	SOLIDAGO-SPP. SONCHUS-AS	036	1937
SETARIA-VIRIDIS	SISYMBRIUM-A	039	1967
SETHI. GILL. SWARUP. MELOIDOGYNE-SPP.	VE	152	1964
SHAFFER. HETERODERA-SCHACHTII	SUGAR-BEET-	062	1958
SHAD. HOST-PLANTS	HETERODERA-MARIONI* L	101	1947
SHAW. SMITH. GAINES. GRAHAM. TOBACCO	ROO	028	1944
SHLEPETENE. WEEDS*	SHLEPETENE. WEEDS*	153	1965
SICYOS-ANGULATA	SISYMBRIUM-OFFICINALE SO	055	1958
SIDA-MEYENIANA	SILENE-GALLICA SOLANUM-AC	058	1935
SIDA-RHOMBIFOLIA	TOMATO VERBENA-SP.	111	1961
SIDA-SPINOSA	SORGHUM-HALEPENSE SPECULARI	074	1976
SIEFF. TOMATO-EELWORMS	ROOT-KNOT-NEMATOD	154	1959
SILENE-GALLICA	SOLANUM-ACULEATISSIMUM	058	1935
SINAPIS-ARVENSIS	THLASPI-ARVENSE	143	1959
SINAPIS-ARVENSIS	THLASPI-ARVENSE	177	1967
SISYMBRIUM-ALTISSIMUM	SOLANUM-DULCAMARA	039	1967
SISYMBRIUM-ALTISSIMUM	ANTHEMIS-COTULA	169	1960
SISYMBRIUM-ALTISSIMUM	SOLANUM-DULCAMA	170	1962
SISYMBRIUM-OFFICINALE	TARAXACUM-OFFICINA	049	1964
SISYMBRIUM-OFFICINALE	SOLANUM-DULCAMARA	055	1958
SISYMBRIUM-OFFICINALE	STELLARIA-MEDIA TH	091	1945
SISYMBRIUM-SOPHIA	XANTHIUM-SPINOSUM* GO	060	1951
SISYRINCHIUM-ANGUSTIFOLIUM	SOLIDAGO-GRA	070	1951
SLEETH. ROOT-KNOT-NEMATODE	CANAIGRE	137	1951
SLYKHUIS. AGROPYRON-REPENS	GRASSES CEREAL	155	1967
SMITH. GAINES. GRAHAM. TOBACCO	ROOT-KNOT	028	1944
SNAPBEAN PEA	BRASSICA-NIGRA	044	1964
SOJA-MAX	TRIFOLIUM-ARVENSE	029	1934
SOLANUM	POTATO-ROOT-EELWORM	047	1954
SOLANUM-ACULEATISSIMUM	SOLANUM-NO	058	1935

SOLANUM-CAROLINENSE	SOLANUM-NIGRUM*	044	1964
SOLANUM-DULCAMARA	STELLARIA-MEDIA TH	039	1967
SOLANUM-DULCAMARA	SOLANUM-NIGRUM SOL	055	1958
SOLANUM-DULCAMARA	SONCHUS-ARVENSIS STELL	170	1962
SOLANUM-NIGRUM	SOLANUM-SEAFOR	022	1955
SOLANUM-NIGRUM	SONCHUS-ARVEN	025	1967
SOLANUM-NIGRUM	SOLANUM-ROSTRATUM SONCHUS	055	1958
SOLANUM-NIGRUM	TARAXACUM-OFFICINA	083	1973
SOLANUM-NIGRUM	TARAXACUM-SP.* KEMPER. M	096	1959
SOLANUM-NIGRUM	HOT POTATO-ROOT-EELWORM	130	1958
SOLANUM-NIGRUM*	ALTMAN. SUGAR-BEET-NEMA	002	1968
SOLANUM-NIGRUM*	EDWARDS. TAYLOR. HOT-R	044	1964
SOLANUM-NODIFLORUM	STACHYS-ARVENSIS	058	1935
SOLANUM-ROSTRATUM	SONCHUS-ARVENSIS	055	1958
SOLANUM-SARACHOIDES	POTATO-ROOT-EELWORM*	015	1945
SOLANUM-SEAFORTHIANUM	URENA-LOBATA* BRO	022	1955
SOLANUM-SPP.	LYCOPERSICUM-SPP.	181	1954
SOLANUM-TUBEROSUM	TRIFOLIUM-PRATENSE	151	1957
SOLIDAGO-GIGANTEA	XANTH	066	1951
SOLIDAGO-GRAMINIFOLIA	TARAXACUM-OFFICINA	070	1951
SOLIDAGO-SPP.	SONCHUS-ASPER	036	1937
SOLIDAGO-SPP.	SONCHUS-ARVENSIS SONCHUS-O	169	1960
SOLOVEGA, WEEDS	CABBAGE* SOLOVEGA, WEED	156	
SONCHUS-ARVENSIS	TUSSILAGO-FARFARA BEL	008	1968
SONCHUS-ARVENSIS	SONCHUS-OLERACEUS GALIU	025	1967
SONCHUS-ARVENSIS	SONCHUS-OLERA	055	1958
SONCHUS-ARVENSIS*	GOODEY. POTATO-TUBER-	063	1951
SONCHUS-ARVENSIS	ANAGALLIS-ARVENSIS CONV	143	1959
SONCHUS-ARVENSIS	SONCHUS-OLERACEUS	169	1960
SONCHUS-ARVENSIS	STELLARIA-MEDIA	170	1962
SONCHUS-ASPER	TARAXACUM-	036	1937
SONCHUS-ASPER	TUSSILAGO-FARFARA* DUGGAN	042	1962
SONCHUS-ASPER*	SAYRE. VEGETABLE ROOT-KN	148	1960
SONCHUS-OLERACEUS	GALIUM-APARINE	025	1967
SONCHUS-OLERACEUS	STELLARIA-MEDIA TARAXA	055	1958
SONCHUS-OLERACEUS	STELLARIA-M	169	1960
SOPER. CLOVER	HIERACIUM-GRONOVII ANGUILL	157	1949
SORGHUM	APHELENCHUS-AVENAE AP	093	1969
SORGHUM-HALEPENSE*	BIRCHFIELD. CYST-NEM	016	1973
SORGHUM-HALEPENSE*	BIRCHFIELD. TYLENCHO	017	1954
SORGHUM-HALEPENSE	TYLENCHORHYNCHU	018	1956
SORGHUM-HALEPENSE	AMBROSIA-	073	1976
SORGHUM-HALEPENSE	MELOIDOGYNE-INCOGNITA	074	1976
SORGHUM-HALEPENSE	SPECULARIA-PERFOLIATA	074	1976
SORGHUM-HALEPENSE	CYPERUS-ESCULENTUS	075	1974
SOUTHERN-ROOT-KNOT	NEMATODE MELOIDOGYNE-	039	1967
SOUTHERN-ROOT-KNOT	NEMATODE MELOIDOGYNE-	128	1969
SOUTHEY. STANILAND.	STEM-ELLWORM DITYLEN	158	1950
SOYBEAN COTTON	MELOIDOGYNE-INCOG	075	1974
SOYBEAN CYPERUS-SPP.	SORGHUM-HALE	074	1976
SOYBEAN SNAPBEAN	PEA BRASSI	044	1964
SOYBEAN*	PROKHOROV. WEEDS SOYBEAN* PRO	129	1972
SOYBEAN-CYST-NEMATODE	CARDAMINE-PARVIFLO	139	1966
SPECULARIA-PERFOLIATA	STELLARIA-M	074	1976
SPERGULA-ARVENSIS	STELLARIA-MEDIA	034	1973
SPIGELIA-ANTHELMIA	TA	046	1974

SPINACH STELLARIA-SP. CURRANT*	VAN-DER-	174	1965
SPIRAL-NEMATODE HELICOTYLENCHUS-MANNUS I		172	1970
STACHYS-ARTEN-ALOPECURUS STACHYS-ARTEN-O		025	1967
STACHYS-ARTEN-OFFICINALIS	STACH	025	1967
STACHYS-ARTEN-PALUSTRIS*	BURCKHART. LEA	025	1967
STACHYS-ARVENSIS		058	1935
STACHYTARPHETA-DICHOTOMA SYNEDRELLA-NODI		058	1935
STANILAND. ANGUILLULINA-DIPSACI WEED-HOS		159	1945
STANILAND. STEM-ELLWORM DITYLENCHUS-DIPS		158	1950
STEINER. BLANTON. WEEDS CARRIERS BULB ST		029	1934
STEINER. ROOT-KNOT RICE WEEDS HETERODERA		160	1934
STELLARIA-MEDIA CERASTIUM-VULGATUM GALIU		009	1968
STELLARIA-MEDIA TARAXACUM-OFFICINALE V		013	1959
STELLARIA-MEDIA TARAXACUM-OFFICINALIS UR		025	1967
STELLARIA-MEDIA	URTICA-URENS*	034	1973
STELLARIA-MEDIA	THLASPI-ARVENSE VERO	039	1967
STELLARIA-MEDIA ATRIPLEX-PATULA DITYLEN		043	1954
STELLARIA-MEDIA* GAHAN. ROOT-EELWORM SU		054	1955
STELLARIA-MEDIA TARAXACUM-OFFICINALE		055	1958
STELLARIA-MEDIA SUGAR-BEET-EELWORM		059	1954
STELLARIA-MEDIA* GOODEY. STEM-EELWORM A		064	1947
STELLARIA-MEDIA VICIA-ANGUSTIFOLIA VIGNA		074	1976
STELLARIA-MEDIA SORGHUM-HALEPENSE CY		075	1974
STELLARIA-MEDIA	GALIUM-APARINE O	085	1936
STELLARIA-MEDIA* JOHNSON. ANGUILLULINA-		086	1939
STELLARIA-MEDIA OAT* JOHNSON. STEM BULB		087	1940
STELLARIA-MEDIA THLASPI-ARVENSE* JONES.		091	1945
STELLARIA-MEDIA	GALIUM-APARINE DI	108	1958
STELLARIA-MEDIA* MURANT. WILD-PLANTS LO		119	1970
STELLARIA-MEDIA POLYGONUM-SPP. ONION-R		122	1957
STELLARIA-MEDIA* SALENTINY. DITYLENCHUS		143	1959
STELLARIA-MEDIA	VERONICA-	158	1950
STELLARIA-MEDIA* STANILAND. ANGUILLULIN		159	1945
STELLARIA-MEDIA TUSSILAGO-FARFARA URTICA		166	1969
STELLARIA-MEDIA MATRICARIA-MATRICARIODES		167	1970
STELLARIA-MEDIA TARAXACUM-OFFICINALE* T		169	1960
STELLARIA-MEDIA	TARAXACUM-OFFIC	170	1962
STELLARIA-SP. CURRANT* VAN-DER-MEER. LO		174	1965
STEM BULB-ELLWORM ANGUILLULINA-DIPSACI W		087	1940
STEM-EELWORM ANGUILLULINA-DIPSACI OATS O		064	1947
STEM-EELWORM CEREALS FARM-CROPS DITYLENC		009	1968
STEM-EELWORM FIELD-BEANS GALIUM-APARINE		088	1937
STEM-EELWORMS DITYLENCHUS-DIPSACI		024	1956
STEM-EELWORMS HOST-RANGE DITYLENCHUS-DIP		151	1957
STEM-ELLWORM DITYLENCHUS-DIPSACI		158	1950
STEM-NEMATODE NARCISSUS ANGUILLILINA-D		029	1934
STEM-NEMATODE	DITYLENC	044	1964
STEM-NEMATODE DITYLENCHUS-DIPSACI		013	1959
STEM-NEMATODE LUCERNE TYLENCHUS-DIPSACI		045	1932
STING-NEMATODE CROPS		076	1953
STING-NEMATODE BELONOLAIMUS-GRACILIS		077	1953
STOKES. LANGDON. GRASS-HOST CITRUS-NEMAT		161	1966
STOUT. ROSS. DUTCH. THOMAS. WEED-CONTROL		182	1976
STRAWBERRY	RASPBERRY POA-ANNUA CA	165	1968
STRAWBERRY GRASSES CLOVERS		166	1969
STRAWBERRY SISYMBRIUM-ALTISSIMUM ANTHEMI		169	1960

STRAWBERRY*	PLAKIDAS.	ALLIGATOR-WEED	HE	127	1936	
STUBBY-ROOT-NEMATODE	TRICHODORUS-CHRISTI			172	1970	
STUNT-NEMATODE	TYLENCHORHYNCHUS-CLAYTONI			172	1970	
SUDAKOVA.	WEEDS	RESERVOIR-HOSTS*	SUDAKO	162	1959	
SUGAR-BEET	HETERODERA-SCHACHTII*	CH		007	1952	
SUGAR-BEET	SPINACH	STELLARIA-SP.		174	1965	
SUGAR-BEET	CARROT	ALFALFA	RED-C	049	1964	
SUGAR-BEET	HETERODERA-SCHACHTII			054	1955	
SUGAR-BEET	KOCHIA-SP.	ROOT-KNOT-NEMATODE		149	1955	
SUGAR-BEET	RAPE	BEET KALE	KOHLRABI	177	1967	
SUGAR-BEET-DISEASES	HETERODERA-MARIONI			117	1945	
SUGAR-BEET-EELWORM		HETER		059	1954	
SUGAR-BEET-EELWORM	HETERODERA-SCHACHTII			177	1967	
SUGAR-BEET-NEMATODE	HETERODERA-SCHACHTII			002	1968	
SUGAR-BEET-NEMATODE	CHENOPODIUM-ALBUM			062	1958	
SUGAR-BEET-NEMATODE	HETERODERA-SCHACHTII			118	1957	
SUGAR-BEET-NEMATODE	ATRIPLEX-PATULA			135	1948	
SUGAR-BEET-ROOT-GALLS		NACO		150	1956	
SUGARCANE		SORGHUM-HALEP		017	1954	
SUGARCANE	HOST	SORGHUM-HALEPENSE		018	1956	
SUGARCANE	WEEDS	ACALYPHIA-INDICA	GYNAMDR	133	1960	
SUGARCANE*	KHURRAMOV.	WEEDS	SUGARCANE*	097	1974	
SUIT.	DUCHARME.	BROOKS.	RADOPHOLUS-SIMIL	163	1954	
SWARUP.	MELOIDOGYNE-SPP.	VEGETABLE-CROPS		152	1964	
SYNEDRELLA-NODIFLORA		SYNTH		058	1935	
SYNTERISMA-CHINENSIS	SYNTERISMA-PRURIE			058	1935	
SYNTERISMA-PRURIENS		SY		058	1935	
SYNTERISMA-SANGUINALIS	TITHONIA-ROTUNDI			058	1935	
TALINUM-TRIANGULARE	TRIDAX-PROCUMBES*	E		046	1974	
TAPPAN.	KINCAID.	CHRISTIE.	THAMES.	TOBAC	164	1958
TARAXACUM-OFFICINALE	VERONICA-ARVENSIS			013	1959	
TARAXACUM-OFFICINALIS	URTICA-DIOICA			025	1967	
TARAXACUM-OFFICINALE*	CROSSMAN.	CHRISTI		036	1937	
TARAXACUM-OFFICINALE	HYPOCHAERIS-RADICAT			045	1932	
TARAXACUM-OFFICINALE		TR		049	1964	
TARAXACUM-OFFICINALE		TRAGOPOGON-PRA		055	1958	
TARAXACUM-OFFICINALE		TR		070	1951	
TARAXACUM-OFFICINALE	BARBAREA-VULGARIS	F		083	1973	
TARAXACUM-OFFICINALE*	TOWNSHEND.	DAVIDS		169	1960	
TARAXACUM-OFFICINALE	THLASPI-ARVENSE			170	1962	
TARAXACUM-PLATYCARPUM*	ICHINOHE.	YUHARA		082	1956	
TARAXACUM-SP.*	KEMPER.	MELOIDOGYNE-SP.		096	1959	
TAYLOR.	HOST-RANGE	STEM-NEMATODE		044	1964	
TAYLOR.	THOMAS.	XIPHINEMA-DIVERSICAUDATU		165	1968	
TEASEL	PHLOX	NARCISSUS	DITYLE	158	1950	
TEASEL-NEMATODE	DITYLENCHUS-DIPSACI	OATS		035	1952	
THAMES.	HETERODERA-PUNCTATA	AGROSTIS-8TO		080	1966	
THAMES.	TOBACCO	XANTHIUM-SP.	PRATYLE	164	1958	
THLASPI-ARVENSE	VERONICA-PEREGRINA	VERON		039	1967	
THLASPI-ARVENSE*	JONES.	BEET-EELWORM	HE	091	1945	
THLASPI-ARVENSE		ATRIPLEX-PATULA		143	1959	
THLASPI-ARVENSE		T		170	1962	
THLASPI-ARVENSE		ATRIPLEX-NITENS		177	1967	
THOMAS.	CROP	WEED-PLANTS	HOSTS	LONGIDORU	166	1969
THOMAS.	HOST-STATUS	XIPHINEMA-DIVERSICAU		167	1970	
THOMAS.	WEED-CONTROL*	YEATES.	STOUT.	RO	182	1976

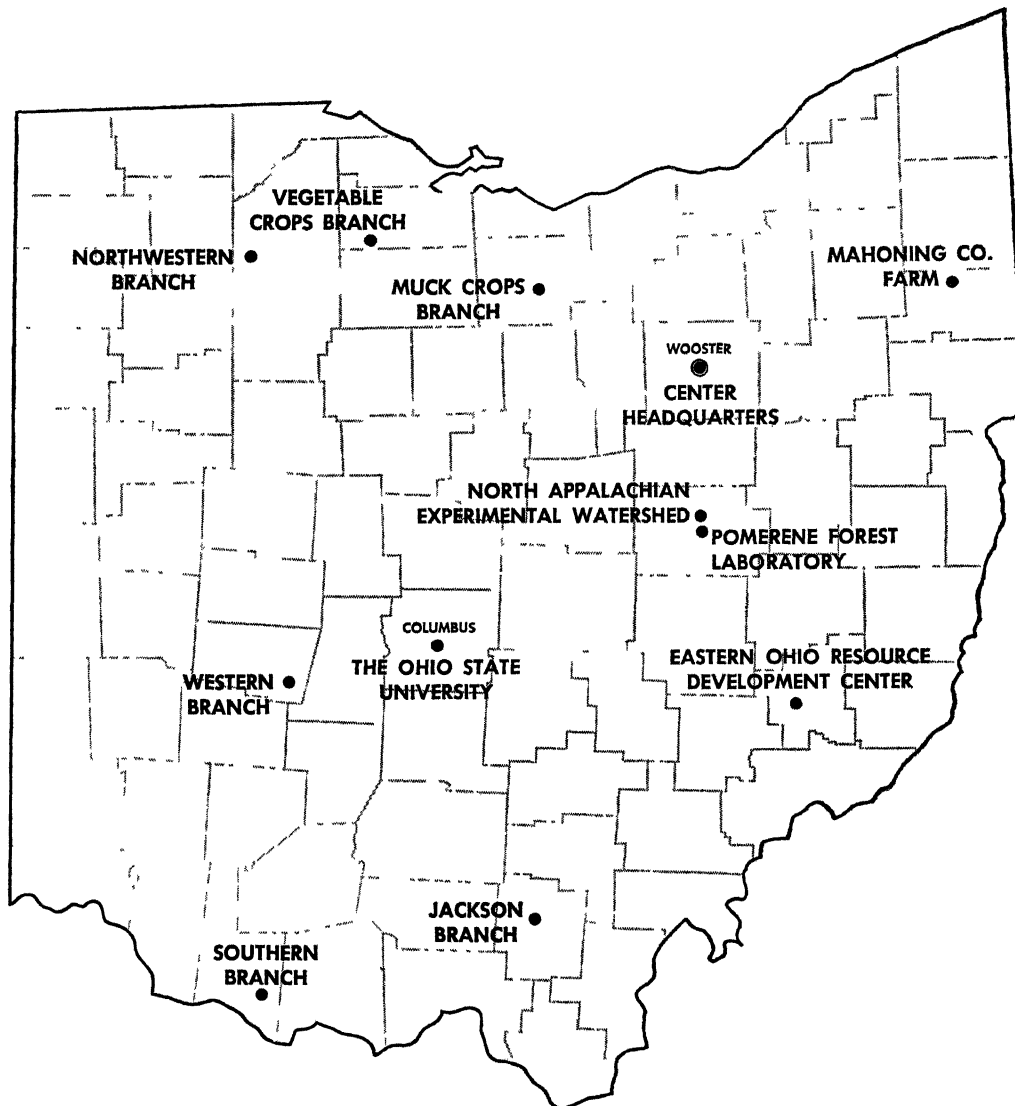
THOMAS. XIPHINEMA-DIVERSICAUDATUM STRAWB	165	1968
THOMASON. VAN-GUNDY. PLUCHEA-SERICEA HOS	168	1961
THOMPSON. STEM-EELWORM FIELD-BEANS GALIU	088	1937
THORNE. OATS HETERODERA-SCHACHTII AVENA-	132	1934
THORNE. WEEDS SUGAR-BEET-ROOT-GALLS	150	1956
TITHONIA-ROTUNDIFOLIA TRIC	058	1935
TOBACCO ERIGERON-CANADENSIS D	147	1955
TOBACCO CROP* SASSER. TOBACCO CROP* SA	146	1950
TOBACCO HETERODERA-MARIONI* BRATLEY. WE	021	1946
TOBACCO PRATYLENCHUS-LEIOCEPHALUS	066	1951
TOBACCO PRATYLENCHUS-LEIOCEPHALUS ELEUSI	098	1952
TOBACCO PRATYLENCHUS-PRATENSIS GRASSES	173	1946
TOBACCO ROOT-KNOT DIGITARIA-SP. HETE	028	1944
TOBACCO XANTHIUM-SP. PRATYLENCHUS-PE	164	1958
TOBACCO* NAUDE. ROOT-KNOT TOBACCO* NAU	121	1939
TOBACCO-EELWORM HETERODERA-MARIONI* COL	032	1938
TOBACCO-RINGSPOT-VIRUS HOSTS CUCUMIS-SAT	140	1970
TOMATO HETERODERA-MARIONI WEEDS* YOUNG.	183	1946
TOMATO STRAWBERRY GRASSES CLOVERS	166	1969
TOMATO VERBENA-SP. VINCA-ROSEA Z	111	1961
TOMATO-EELWORMS ROOT-KNOT-NEMATODES WEED	154	1959
TOWNSHEND. DAVIDSON. GRASS-HOSTS	128	1969
TOWNSHEND. DAVIDSON. WEED-HOSTS PRATYLEN	169	1960
TOWNSHEND. DAVIDSON. WEED-HOSTS	170	1962
TOWNSHEND. WEED-HOSTS	039	1967
TRAGOPOGON-PORRIFOLIUS VERONICA-ARVENSIS	170	1962
TRAGOPOGON-PRATENSIS VERBASCUM-BLATTARIA	055	1958
TRIBULUS-TERRESTRIS ECHINOCHLOA-CRUS-GAL	011	1961
TRIBULUS-TERRESTRIS* NORTON. HOST MELOI	123	1966
TRICHODORUS-CHRISTIEI ALLIUM-VINEALE AMA	074	1976
TRICHODORUS-CHRISTIEI C	138	1964
TRICHODORUS-CHRISTICI RING-NEMATODE C	172	1970
TRICHODORUS-PACHYDERMIS STE	119	1970
TRICHODORUS-PRIMITIVUS TRICHODORUS-PACHY	119	1970
TRICHODORUS-SP. CYPERUS-SPP. SORGHUM-HAL	073	1976
TRICHODORUS-SPP. POTATOES ACHILLEA-MILLE	034	1973
TRICHOLAENA-ROSEA TRIUMFETTA-RHOMBOIDEA	058	1935
TRIDAX-PROCUMBES* EGUNJOBI. MAIZE PRATY	046	1974
TRIFOLIUM-ARVENSE TRIFOLIUM	029	1934
TRIFOLIUM-DUBIUM TRIFOLIUM-PRATENSE TRIF	068	1952
TRIFOLIUM-FRAGIFERUM VICIA-SATIVA* FAUL	049	1964
TRIFOLIUM-HYBRIDUM TRIFOLIUM-PRATENSE VI	070	1951
TRIFOLIUM-PRATENSE TRIFOLIUM-REPENS	068	1952
TRIFOLIUM-PRATENSE VICIA-SATIVA* HENDER	070	1951
TRIFOLIUM-PRATENSE TRIFOLIUM-RE	151	1957
TRIFOLIUM-REPENS* BROWN. CLOVER DITYLEN	023	1954
TRIFOLIUM-REPENS* COBB. STEINER. BLANTO	029	1934
TRIFOLIUM-REPENS CAPSELLA-BURSA-P	068	1952
TRIFOLIUM-REPENS TULIPA-GESNERIANA* SEI	151	1957
TRIFOLIUM-REPENS TRIUMFETTA-RHOMBOIDEA	058	1935
TROPAEOLACEAE HETERODERA-CRUCIFERAE HETE	181	1954
TROPICAL-CROPS MELOIDOGYNE-INCOGNITA ME	014	1959
TUBER-ROT-EELWORM DITYLE	042	1962
TUCKER. GOLDEN. HETERODERA-MOTHI	114	1973
TULAGANOV. CROPS WEEDS HETERODERA-MARION	171	1954
TULIP-ROOT ARENARIA-SERPYPHYLLIFOLIA CERAS	159	1945

TULIPA-GESNERIANA*	SEINHORST. STEM-EELW	151	1957	
TUSSILAGO-FARFARA	BELLIS-PERENNIS RUME	008	1968	
TUSSILAGO-FARFARA*	DUGGAN. MOORE. HOST-	042	1962	
TUSSILAGO-FARFARA	URTICA-DIOICA	166	1969	
TUSSILAGO-FARFARA	BRASSICA-SINAPIS CAPS	167	1970	
TYLENCHORHYNCHUS-SP.	SUGARCANE	017	1954	
TYLENCHORHYNCHUS-MARTINI*	BIRCHFIELD. M	018	1956	
TYLENCHORHYNCHUS-CLAYTONI	AMA	113	1969	
TYLENCHORHYNCHUS MELOIDOGYNE-JAVANICA*		133	1960	
TYLENCHORHYNCHUS-CLAYTONI	XANTHIUM-PE	172	1970	
TYLENCHULUS-SEMI-PENETRANS	MIKANIA-BATAT	027	1957	
TYLENCHULUS-SEMIPENETRANS	ANDROPOGON-RHI	161	1966	
TYLENCHUS-COFFEAE	A	051	1941	
TYLENCHUS-DAVAINI	TYLENCHUS-FILIFORMIS*	093	1969	
TYLENCHUS-DIPSACI	TARAXACUM-O	045	1932	
TYLENCHUS-FILIFORMIS*	KASIMOVA. WEEDS V	093	1969	
TYLENCHUS-SPP.	PRATYLENCHUS-S	036	1937	
UPCHURCH. SELMAN. WEBSTER. WEED-INFESTAT		172	1970	
URENA-LOBATA*	BROOKS. HOSTS BURROWING-N	022	1955	
URTICA	HETERODERA-GOTT	181	1954	
URTICA-DIOICA	URTICA-URENS GLECH	025	1967	
URTICA-DIOICA	AGROPYRON-REPE	166	1969	
URTICA-URENS GLECHOMA-HEDERACEA	SENECIO-	025	1967	
URTICA-URENS*	COOPER. HARRISON. WEED-HO	034	1973	
VALLEAU. JOHNSON. TOBACCO	PRATYLENCHUS-P	173	1946	
VAN-DER-MEER. LONGIDORUS-ELONGATUS	RED-C	174	1965	
VAN-GUNDY. PLUCHEA-SERICEA	HOST	168	1961	
VANDELLIA-SP.*	RAO. ISRAEL. BISWAS. WEE	134	1970	
VANTERPOOL. DITYLENCHUS-RADICICOLA	ROOT-	175	1948	
VASANTHARAJAN. VENKATESAN. ROOT-KNOT-NEM		133	1960	
VEGETABLE AMARANTHUS ATRIPLEX	CHENOPODIU	093	1969	
VEGETABLE ROOT-KNOT-NEMATODE	MELOIDOGYNE	148	1960	
VEGETABLE-CROPS	ROOT-KNOT-NEMATODE	152	1964	
VEGETABLES	WEEDS RESERVOIRS*	LINDHAR	102	1957
VEGETABLES MELONS WEEDS*	SAKCHIEV. MELO	141	1971	
VEGETABLES MELONS WEEDS*	SAKCHIEV. ROOT	142	1972	
VEGETABLES ROOT-CROPS	POTATOES*	KAVANAG	094	1974
VENKATESAN. ROOT-KNOT-NEMATODES	SUGARCA	133	1960	
VERBASCUM-BLATTARIA	V	055	1958	
VERBENA-BONARIENSIS	XANTHIUM-CANADENSE*	058	1935	
VERBENA-SP.	VINCA-ROSEA ZINNIA-S	111	1961	
VERNONIA-ALTISSIMA	XANTHIUM-PENNSYLVANIC	055	1958	
VERONICA-AGRESTIS*	SOUTHEY. STANILAND.	158	1950	
VERONICA-AGRESTIS*	WALTON. OAT ANGUILLU	179	1938	
VERONICA-ARVENSIS	VERONICA-PEREGRINA*	B	013	1959
VERONICA-ARVENSIS	VER	170	1962	
VERONICA-PEREGRINA*	BARKER. SASSER. STE	013	1959	
VERONICA-PEREGRINA	VERONICA-SERPYPHILLIFOLI	039	1967	
VERONICA-PEREGRINA	VICIA-VILLOSA*	TOWNS	170	1962
VERONICA-SERPYPHILLIFOLIA*	DAVIDSON. TOWNS	039	1967	
VERONICA-SP.*	THOMAS. HOST-STATUS XIPHI	167	1970	
VICIA	HETERODERA-MAJOR*	WINS	181	1954
VICIA-ANGUSTIFOLIA	VIGNA-SINENSIS	074	1976	
VICIA-SATIVA*	FAULKNER. MCELROY. HOST-R	049	1964	
VICIA-SATIVA*	HENDERSON. HOST POTATO-RO	070	1951	
VICIA-SP.	TRIFOLIUM-DUBI	068	1952	

VICIA-VILLOSA*	TOWNSHEND. DAVIDSON. WEE	170	1962
VIDEGARD. HETERODERA-AVENAE	CEREALS AVEN	176	1967
VIGNA-SINENSIS	XANTHIUM-PENNSY	074	1976
VIGNA-SINENSIS*	LINFORD. APHELENCHUS-AV	103	1939
VIGNA-UNGUICULATA*	FASSULIOTIS. HOST-RA	048	1974
VINCA-ROSEA ZINNIA-SP.*	MCBRIDE. JOHNS.	111	1961
VINDUSKA. WEEDS SUGAR-BEET-EELWORM	HETER	177	1967
VIOLA-ARVENSIS	TRICHODOR	034	1973
VIOLA-TRICOLOR	MENTHA-ARVENSIS VERON	167	1970
WALKER. CABBAGE ANTHEMIS-COTULA	CARDIOSP	178	1927
WALTON. OAT ANGUILLULINA-DIPSACI	BRASSIC	179	1938
WEBSTER. WEED-INFESTATIONS		172	1970
WEED BETA BRASSICA CRUCIFERAE	CHENOPODI	118	1957
WEED CROP-PLANTS HOSTS	R	134	1970
WEED HOST HETERODERA-GLYCINES		139	1966
WEED HOSTS COTTON SOYBEAN CYPERUS-SPP.		074	1976
WEED-CONTROL*	YEATES. STOUT. ROSS. DUTC	182	1976
WEED-ERADICATION*	PITMAN. EELWORM-SCAB	126	1946
WEED-HOST HETERODERA-ROSTOCHIENSIS		015	1945
WEED-HOSTS	S	039	1967
WEED-HOSTS	N	170	1962
WEED-HOSTS MELOIDOGYNE-INCOGNITA		055	1958
WEED-HOSTS OATS TULIP-ROOT	ARENARIA-SER	159	1945
WEED-HOSTS PRATYLENCHUS-PENETRANS	S	169	1960
WEED-HOSTS RED-CLOVER OAT TEASEL PHLOX	N	158	1950
WEED-HOSTS VIOLA-ARVENSIS		034	1973
WEED-HOSTS*	LARSEN. WEED-HOSTS* LARSEN	099	1948
WEED-INFESTATIONS	LESION-	172	1970
WEED-PLANTS HOSTS LONGIDORUS-ELONGATUS		166	1969
WEED-SPECIES RASPBERRY CHENOPODIUM-QUINO		174	1965
WEEDS	HETERODERA-SCH	092	1947
WEEDS	GALIUM-APARINE STELLARIA-MED	087	1940
WEEDS ACALYPHIA-INDICA GYNAMDROPSIS-PENT		133	1960
WEEDS ANAGALLIS-ARVENSIS	ARE	064	1947
WEEDS CABBAGE*	SOLOVEGA. WEEDS CABBAGE*	156	
WEEDS CARRIERS BULB STEM-NEMATODE	NARC	029	1934
WEEDS CORN PRATYLENCHUS-ZEAE	PRATYLENC	111	1961
WEEDS COVERCROPS HOSTS SOYBEAN COTTON		075	1974
WEEDS CRICONEMOIDES-ONOENSIS		078	1972
WEEDS CROPS	PRATYL	113	1969
WEEDS CROPS HOPLOLAIMUS-COLUMBUS		073	1976
WEEDS CROPS*	FRANKLIN. INTERRELATIONSHI	052	1970
WEEDS DITYLENCHUS-DESTRUCTOR	SOLANUM-NIG	083	1973
WEEDS HETERODERA-MARIONI	ECHI	160	1934
WEEDS HETERODERA-MARIONI*	TULAGANOV. CR	171	1954
WEEDS HOST-RANGE*	SALENTINY. DITYLENCHU	144	1957
WEEDS HOSTS BANANAS*	PEREZ. WEEDS HOSTS	125	1974
WEEDS RESERVOIRS*	LINDHARDT. DITYLENCHU	102	1957
WEEDS RESERVOIR-HOSTS*	SUDAKOVA. WEEDS	162	1959
WEEDS RICE ECHINOCHLOA-COLONUM	CYPERUS-I	079	1972
WEEDS ROOT-KNOT TOBACCO HETERODERA-MARIO		021	1946
WEEDS SOYBEAN*	PROKHOROV. WEEDS SOYBEAN	129	1972
WEEDS STELLARIA-MEDIA	GALIUM-APA	085	1936
WEEDS SUGAR-BEET-ROOT-GALLS		150	1956
WEEDS SUGAR-BEET-EELWORM HETERODERA-SCHA		177	1967
WEEDS SUGARCANE*	KHURRAMOV. WEEDS SUGAR	097	1974

WEEDS VEGETABLE AMARANTHUS ATRIPLEX CHEN	093	1969
WEEDS WHEAT* ALALIKIRIA. NEMATODES WEED	001	1969
WEEDS WILD-PLANTS APHE	025	1967
WEEDS* HEATHCOTE. WEEDS* HEATHCOTE. WE	069	1970
WEEDS* JOHNSTONE. RAYNOLDS. ROOT-KNOT W	090	1954
WEEDS* MISHKINO. WEEDS* MISHKINO. WEED	116	
WEEDS* MORRIS. AFANASIEV. SUGAR-BEET-DI	117	1945
WEEDS* SAKCHIEV. MELOIDOGYNE VEGETABLES	141	1971
WEEDS* SAKCHIEV. ROOT-KNOT-NEMATODES VE	142	1972
WEEDS* SHLEPETENE. WEEDS* SHLEPETENE.	153	1965
WEEDS* SIEFF. TOMATO-EELWORMS ROOT-KNOT	154	1959
WEEDS* SUIT. DUCHARME. BROOKS. RADOPHOL	163	1954
WEEDS* VALLEAU. JOHNSON. TOBACCO PRATYL	173	1946
WEEDS* WILSON. ROOT-KNOT-EELWORM HETERO	180	1937
WEEDS* YOUNG. TOMATO HETERODERA-MARIONI	183	1946
WEEDS-AS-RESERVOIRS* FRANKLIN. CYST-FOR	053	1951
WHEAT DIPSACUS-FULLONUM COLLOMIA-GRADIFL	035	1952
WHEAT GRAMINEAE ANGUILLULINA-RADICICOLA	175	1948
WHEAT* ALALIKIRIA. NEMATODES WEEDS WHEA	001	1969
WILD-PLANTS APHELENCHO	025	1967
WILD-PLANTS LONGIDORUS-ELONGATUS	119	1970
WILSON. ROOT-KNOT-EELWORM HETERODERA-MAR	180	1937
WINSLOW. HOST-PLANTS ROOT-EELWORMS HETER	181	1954
WOLFENBARGER. ROOT-KNOT-NEMATODE	033	1950
XANTHIUM-CANADENSE* GODFREY. HOST ROOT-	058	1935
XANTHIUM-PENNSYLVANICUM* GASKIN. WEED-H	055	1958
XANTHIUM-PENNSYLVANICUM* HOGGER. BIRD.	074	1976
XANTHIUM-PENNSYLVANICUM CYNODON-DACTYLO	076	1953
XANTHIUM-PENNSYLVANICUM AMBROSIA-ARTEMIS	172	1970
XANTHIUM-PUNGENS* GRAHAM. TOBACCO PRATY	066	1951
XANTHIUM-SP. PRATYLENCHUS-PENETRANS	164	1958
XANTHIUM-SP.* HOLDEMAN. GRAHAM. STING-N	077	1953
XANTHIUM-SPINOSUM* GOFFART. CHENOPODIUM	060	1951
XANTHIUM-STRUMARIUM* RUSH. TOBACCO-RING	140	1970
XIPHINEMA-AMERICANUM EUPATORIUM-CAPILIFO	140	1970
XIPHINEMA-COXI* SLYKHUIS. AGROPYRON-REP	155	1967
XIPHINEMA-DIVERSICAUDATUM* XIPHINEMA-DI	010	1972
XIPHINEMA-DIVERSICAUDATUM CUCUMBERS* DO	041	1965
XIPHINEMA-DIVERSICAUDATUM STRAWBERRY	165	1968
XIPHINEMA-DIVERSICAUDATUM POA-ANNUA	167	1970
XIPHINEMA-PARAE LONGATUM XIPHINEMA-COXI*	155	1967
YAP. RENIFORM-NEMATODE ROTYLENCHUS-RENIF	106	1940
YEATES. STOUT. ROSS. DUTCH. THOMAS. WEED	182	1976
YOUNG. TOMATO HETERODERA-MARIONI WEEDS*	183	1946
YUHARA. ROOT-KNOT-NEMATODE MELOIDOGYNE-H	082	1956
ZINNIA-SP.* MCBRIDE. JOHNS. CARTER. HOS	111	1961

The State Is the Campus for Agricultural Research and Development



Ohio's major soil types and climatic conditions are represented at the Research Center's 12 locations.

Research is conducted by 15 departments on more than 7000 acres at Center headquarters in Wooster, eight branches, Pomerene Forest Laboratory, North Appalachian Experimental Watershed, and The Ohio State University.

Center Headquarters, Wooster, Wayne County: 1953 acres

Eastern Ohio Resource Development Center, Caldwell, Noble County: 2053 acres

Jackson Branch, Jackson, Jackson County: 502 acres

Mahoning County Farm, Canfield: 275 acres

Muck Crops Branch, Willard, Huron County: 15 acres

North Appalachian Experimental Watershed, Coshocton, Coshocton County: 1047 acres (Cooperative with Science and Education Administration/Agricultural Research, U. S. Dept. of Agriculture)

Northwestern Branch, Hoytville, Wood County: 247 acres

Pomerene Forest Laboratory, Coshocton County: 227 acres

Southern Branch, Ripley, Brown County: 275 acres

Vegetable Crops Branch, Fremont, Sandusky County: 105 acres

Western Branch, South Charleston, Clark County: 428 acres